The Specialty Practice of Cognitive and Behavioral Psychology

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What makes cognitive and behavioral psychology a specialty practice when many psychologists of differing orientations may inquire about a client's cognitions and behaviors? Distinctive and unifying aspects of the specialty practice of cognitive and behavioral psychology are discussed as they relate to psychotherapeutic practice. A brief history of the field is given, and procedures in assessment, case conceptualization, and treatment planning are reviewed. Information regarding education and training is provided. Resources are suggested for individuals who wish to develop competency in cognitive and behavioral psychology. Psychologists who use cognitive and behavioral principles in assessments, treatment planning, case conceptualizations, interventions, or all of these are encouraged to pursue specialty certification in cognitive and behavioral psychology.

Keywords: cognitive, behavior, cognitive-behavioral, therapy, specialty

"Cognitive and behavioral psychology" is not a default description of what many clinicians do. Cognitive and behavioral psychology is a distinct specialty practice within professional psychology based on the application of basic learning and developmental principles, cognitive and social learning theoretical principles, or both to psychotherapeutic treatment. Defining hallmarks of the specialty include the use of interventions that have been subjected to scholarly investigation; the application of specific treatment strategies designed to modify cognitions, behaviors, or both; and the use of empirical outcome measures designed to

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track the impact of treatment on the client. In this article, we make the case for cognitive and behavioral psychology as a distinct and comprehensive psychological specialty devoted to therapeutic treatment. Because of practical limitations, a comprehensive review of all existing cognitive and behavioral procedures, treatment populations, and interventions is not possible, but we provide illustrative examples. We should initially note that the American Board of Professional Psychology confirmed that cognitive and behavioral psychology possessed specialty characteristics and accepted it into its family of specialties in 1992. The American Psychological Association's (APA's) Committee for the Recognition of Specialties and Proficiencies in Professional Psychology officially recognized the specialty in 2000.

Distinctiveness of the Specialty

The specialty practice of cognitive and behavioral psychology is unified in theme but composed of somewhat different theoretical emphases. The different theoretical emphases (e.g., behavioral, cognitive, and cognitive-behavioral) make the specialty rich with theoretical diversity and allow for the synergy of different theories into practice. At its unified core, cognitive and behavioral psychology is distinguished by the use of principles of human learning and development and theories of cognitive processing in promoting meaningful change. Specialty practitioners focus on the identification of maladaptive behaviors and cognitions and seek to ameliorate presenting problems through behavioral and cognitive interventions. Cognitive and behavioral psychology is a practice specialty only, rather than an academic field such as cognitive psychology. However, certain concepts in cognitive psychology (e.g., implicit learning and tacit knowledge structures; Dowd, 2006; Dowd & Courchaine, 2002) have been used in cognitive and behavioral psychological practice.

Although there are considerable differences between the specific treatment methods used by practitioners adhering to a strict theoretical orientation (e.g., strictly behavioral vs. strictly cognitive), the cognitive and behavioral theoretical orientations have historically grown closer since the days of radical behaviorism.

Both behavioral traditions and cognitive traditions have enriched their practice by borrowing theory and findings from each other (see Dowd, 2002, for a discussion). In addition, all practitioners of cognitive and behavioral psychology, regardless of their specific theoretical orientation, identify relevant variables contributing to a client's presenting problems and systematically modify and assess these variables in treatment. Cognitive and behavioral practitioners also usually use a variety of behavioral, cognitive—behavioral, or cognitive interventions depending on the specific client and diagnosis.

Unifying theories of psychopathology have increasingly incorporated both behavioral approaches and cognitive approaches in examining the etiology, maintenance, and treatment of psychological disorders. One such unifying theory is cognitive therapy (see Alford & Beck, 1997). Alford and Beck (1997) posited that meaning-making structures (i.e., schemas) are central to psychopathology. Individuals can have maladaptive schemas regarding the self, the environment, and the future. Schemas are enduring thematic representations of cognitive statements, networks, and associations (Alford & Beck, 1997). Schemas control and direct various psychological systems as well as behavioral, emotional, attentional, and memory processes and often involve cognitive distortions (i.e., cognitive biases). Learning history and developmental history influence an individual's predisposition or vulnerability to engage in certain distortions (Alford & Beck, 1997). An individual's vulnerabilities are then activated in response to environmental stressors. According to cognitive therapy, psychopathology is the result of schemas, vulnerabilities from learning and developmental history, and environmental stressors (Alford & Beck, 1997).

The increasing integration of cognitive and behavioral approaches can also be seen in the unifying theory of emotional disorders put forth by Moses and Barlow (2006). According to Moses and Barlow, the individual develops emotionally driven behaviors in attempts to reduce an emotional reaction. The reduction of emotional arousal provides negative reinforcement of emotionally driven behaviors. Individuals also experience cognitive processes that generate active and reactive explanations for emotional distress (Moses & Barlow, 2006; see also the meta-theory of Mahoney, Miller, & Arciero, 1995). Individuals make appraisals, which are cognitions regarding the threatening or valuable nature of external cues or internal states. The cognitions activate emotional arousal and assign meaning to emotional states (Moses & Barlow, 2006). When individuals believe cognitions to the exclusion of evidence testing or predict the likelihood of negative events out of proportion to the likelihood that would be predicted by real events, their cognitions are distorted. Emotional disorders are the result of both emotionally driven behaviors and distorted cognitions (Moses & Barlow, 2006).

The aforementioned theory in its entirety (see Moses & Barlow, 2006) includes theories and findings from all of the four areas composing the specialty of cognitive and behavioral psychology: applied behavior analysis, cognitive therapy, behavior therapy, and cognitive—behavioral therapy. Although the four areas differ in the relative emphasis given to behavior and cognition as primary causal agents, psychologists working in each area seek to identify a client's presenting symptoms and manipulate the variables that are seen to influence the symptoms to promote symptom relief. For instance, in the treatment of emotional disorders, applied behavior

analysts would emphasize learned behaviors in treating emotional disorders but would likely eschew cognitive appraisals in favor of manipulation of reinforcements and stimuli. In contrast, cognitive psychologists would focus primarily on cognitive appraisals and would work to help the client reconstruct cognitions to more accurately reflect reality. Behavioral psychologists would manage arousal and behaviors through methods intended to produce habituation to a stimulus or extinction of a behavior. Finally, cognitive—behavioral psychologists would target all the constructs to a greater or lesser extent.

As previously mentioned, the specialty practice of cognitive and behavioral psychology includes the practice of applied behavior analysis, behavior therapy, cognitive therapy, and cognitivebehavioral therapy. Applied behavior analysis and behavior therapy are based in the foundational work of B. F. Skinner (1953), with behavior therapy also being influenced by Joseph Wolpe's application of Ivan Pavlov's classical-respondent conditioning to the treatment of anxiety disorders (Wolpe & Plaud, 1997). Practitioners of applied behavior analysis and behavior therapy view behavior as the primary change agent. In applied behavior analysis and behavior therapy, the sources of reinforcement (e.g., receiving attention) that are maintaining a behavior are examined and modified (see Durand & Carr, 1992; Iwata & Worsdell, 2005). Practitioners of cognitive therapy view cognitions as the primary change agent. Cognitive therapy has its basis in the work of Aaron T. Beck and often involves the examination of cognitive schemas, automatic thoughts, and distorted information processing (see A. T. Beck, 1967; A. T. Beck, Rush, Shaw, & Emery, 1979). Cognitive-behavioral therapy views behaviors and cognitions as possible primary change agents. Practitioners of cognitivebehavioral therapy posit that behavior and cognition affect each other reciprocally (see Dowd, 2006; Whisman, 1993).

Differing perspectives on primary change agents and preferred locus of intervention have led to the specialty being described as both behavioral and cognitive psychology and cognitive and behavioral psychology. Where the cognitive and behavioral practitioner chooses to intervene will depend on the nature of the problem and his or her theoretical orientation.

Rationale for the Specialty

In addition to its distinct theoretical foundation, an important aspect of the rationale for specialty distinctiveness is that interventions based on cognitive and behavioral psychology are especially well equipped to meet the national need for cost-effective, brief, and targeted outpatient interventions. Empirical research has demonstrated the efficacy and effectiveness of many cognitive, behavioral, and cognitive-behavioral interventions for treating psychological problems such as anxiety disorders (see Deacon & Abramowitz, 2004), mood disorders (see Cuijpers, van Straten, &Warmerdam, 2007; Jacobson et al., 2000; Patelis-Siotis, 2008), schizophrenia (see Rathod & Turkington, 2005), personality disorders (e.g., Linehan et al., 2006), substance abuse or dependence disorders (see Waldron & Kaminer, 2004), and conduct disorders (e.g., Rohde, Clarke, Mace, Jorgensen, & Seeley, 2004), among others. Although many efficacy studies regarding cognitive and behavioral interventions use adult populations, forms of cognitive and behavioral interventions have demonstrated utility among children (see Segool & Carlson, 2008), adolescents (see Shirk, Gudmundsen, Kaplinski, & McMakin, 2008), and older adults (see Hendriks, Oude, Keijsers, Hoogduin, & van Balkom, 2008) and across a variety of cultural groups (e.g., Cabiya et al., 2008; Horrell, 2008). Cognitive and cognitive—behavioral therapies are particularly useful for relapse prevention in many chronic disorders (Hollon, Stewart, & Strunk, 2006).

Origins

Behavioral Tradition

The behavioral tradition has its roots in experimental science rather than clinical applications. Experimental science, in the form of learning research, aims to identify causal mechanisms that produce long-term behavioral changes on the basis of experience (Domjan, 2006). The behavioral tradition can be captured in two fundamental learning principles: classical-respondent conditioning and operant-instrumental conditioning. The current application of learning principles can be seen in cognitive and behavioral psychotherapeutic practices such as flooding, differential reinforcement of other behaviors, differential reinforcement of alternative behaviors, graduated exposure, and manipulation of reinforcement schedules, among others. For instance, flooding uses habituation and is efficacious in treating psychological problems such as specific phobia (e.g., Mannion & Levine, 1984), social phobia (e.g., Turner, Beidel, & Jacob, 1994), and panic disorder with agoraphobia (e.g., Emmelkamp & Wessels, 1975), among others. Less intensively, exposure therapy through narrative storytelling uses habituation to stimuli and cognitive reappraisal and is efficacious in treating such populations as rape victims with posttraumatic stress disorder (e.g., Foa, Molnar, & Cashman, 1995) and adult survivors of childhood abuse (e.g., Cloitre, Cohen, & Koenen, 2006), among others.

Cognitive Tradition

The behavioral tradition originally ignored the "black box" of cognition that lies between the environmental stimuli and the resultant behavior. Albert Bandura was one of the first to introduce cognition into the behavioral tradition. Bandura's social learning research highlighted the importance of the perception of reinforcement and the "modeling effect" in which individuals learn by observing others (see Bandura & Walters, 1963). Donald Meichenbaum also highlighted the relevance of cognition as he observed overt self-verbalizations in children that were important regulators of behavior. He proposed that overt self-verbalizations become an internal dialogue in adults (see Meichenbaum, 1977).

Albert Ellis and Aaron T. Beck were also major contributors to the cognitive tradition. Albert Ellis, originally a psychoanalyst, posited that clients' problems generally involve specific distorted thinking patterns (e.g., an excessive use of "shoulds" and "musts," what he called absolutist thinking). Ellis's rational therapy, now called rational–emotive–behavior therapy, was developed to enable clients to recognize and dispute their distorted thinking (see Ellis, 1958). Aaron T. Beck, a psychiatrist and researcher, developed the cognitive model (triad) of depression (see A. T. Beck, 1967). In Beck's (1967) model, depression is characterized by a sense of loss, and depressed individuals have negative automatic cognitions of the self, the world, and the future. Furthermore,

depressed individuals experience cognitive processing distortions, such as overgeneralization and dichotomous thinking (Beck, 1967; A. T. Beck et al., 1979). A. T. Beck, Emery, and Greenberg (1985) also posited that anxiety is characterized by a sense of personal danger and that anxious individuals experience cognitive distortions.

An important forerunner of what came to be known as cognitive—behavioral therapy is personal construct theory, as developed by George Kelly (see Kelly, 1955). Kelly argued that humans are fundamentally meaning makers who constantly formulate hypotheses about the meaning or regularities of events in their lives. Kelly believed that psychologists must fully understand and enter a client's meaning structure (see Kelly, 1955). Likewise, Judith S. Beck (1995) posited that an individual's interpretation of the events in his or her life will determine how the individual responds to his or her experiences.

Practice Settings

Although cognitive and behavioral psychology is often practiced in psychotherapy offices, practice settings vary among populations and interventions. For instance, interventions involving exposure to a feared stimulus are often enhanced by including exposure exercises in real-life settings. Inpatient settings are also used when the client may harm him- or herself, may harm others, may benefit from continuous monitoring, may benefit from a combination of specialists, may benefit from medication, or all of these. Other settings in which the practice of cognitive and behavioral psychology can occur include schools, custodial institutions, the workplace, the home, and prisons, among others.

Applied Procedures

Assessment

In general, the main concern of cognitive and behavioral psychologists conducting intakes and assessments is identifying the client's primary presenting symptoms and determining the current environmental, cultural, interpersonal, intrapersonal, and biological factors contributing to the onset and maintenance of the client's symptoms. Multiple assessment methods are used when possible (e.g., interviews, self-report measures, behavioral observations, in vivo assessments), and the psychologist will likely continue to collect information throughout the course of therapy. Information may also be gathered regarding what purpose the current symptoms serve (e.g., avoidance of an unpleasant stimuli, protecting oneself from failure). The psychologist may conduct a functional analysis of the symptoms that can be tested and modified throughout therapy. The psychologist may instruct the client to engage in behavioral self-monitoring, which can have a reactive effect in at least temporarily suppressing symptomatic behavior or increasing more positive behavior (Thoresen & Mahoney, 1974). Although cognitive and behavioral assessment is largely present oriented, the psychologist may inquire about historical factors that shaped the client's learning history in regards to the presenting symptoms. The specific methods used will vary among psychologists and practice settings.

Case Conceptualization and Treatment Planning

A case conceptualization is constructed on the basis of the client's presenting symptoms or diagnoses as well as the psychologist's theoretical orientation. The cognitive and behavioral psychologist often gathers additional information outside of an intake before a case conceptualization is delineated. For example, the psychologist may use specific self-report measures, direct observation of client behavior in the natural environment, and client self-monitoring of thoughts and behaviors to gain more detailed information about the presenting symptoms. The psychologist often seeks to identify core cognitive structures, dysfunctional information-processing strategies, or maladaptive behavioral patterns that are central to the presenting symptoms. The psychologist may also look for behavioral antecedents and reinforcing consequences in the client's life; however, this behavioral examination would not be conducted in a strictly cognitive therapy framework. The psychologist aims to construct a picture of the client's cognitive and behavioral life structure so that interventions can be selected that will be effective in addressing the presenting symptoms or problems.

The psychologist may choose to adhere to a case conceptualization model to ensure that key issues that are theoretically relevant to the case formulation are addressed (e.g., the cognitive—behavioral case conceptualization model [Persons, 2006] or the behavioral case formulation model [Nezu, Nezu, Friedman & Haynes, 1997]). The content of the case conceptualization is largely based on the information and clinical impressions gained through the assessments. Treatment planning involves selecting targeted cognitive or behavioral interventions designed to modify the presenting symptoms. Precedence is given to interventions that are supported with empirical findings. The breadth of the specialty of cognitive and behavioral psychology allows for both conceptualization and planning that is broad and encompassing.

Considerations for Child Practitioners

Although most of the applied procedures discussed in this article are adult focused, many psychologists working with children and adolescents use a cognitive and behavioral framework. For example, a cognitive and behavioral psychologist who needs to assess, conceptualize, and plan treatment for a disruptive child may focus on identifying the reinforcement conditions maintaining the disruptive behaviors, examining the parents' cognitions regarding the child's intent and their own capacity to parent, and determining the child's behavioral skills deficits, social skills deficits, and impulse control deficits. Treatment planning for a child exhibiting externalizing behaviors may involve identifying interventions designed to modify the reinforcement contingencies surrounding the inappropriate behaviors, expose the child to methods designed to increase the child's appropriate behaviors (e.g., modeling or contingency contracting), and apply cognitive restructuring to modify the parents' thinking about their child and themselves (see Nowak & Heinrichs, 2008).

Two behavioral programs, parent-child interaction therapy and the Triple P Positive Parenting Program, have shown promise in treating both children and parent-child interactions. Parent-child interaction therapy is a treatment program for conduct disordered young children that improves the quality of the parent-child relationship by changing the interaction patterns between parents and children. Parents are taught to use specific behavior management techniques during child play (Herschell, Calzada, Eyberg, & McNeil, 2002). Likewise, the Triple P Positive Parenting Program is a comprehensive behavioral training intervention that is effective in treating a wide range of behavioral, emotional, and developmental problems in children (Bodenmann, Cina, Ledermann, & Sanders, 2008).

Recent Extensions

Third-wave cognitive and behavioral adult interventions have emerged in recent years that involve innovative ways of addressing traditional presenting symptoms. Early maladaptive schemas (Young, Klosko, & Weishaar, 2003) is an example of a farreaching application of cognitive therapy to personality disorders. Young et al. (2003) identified 18 early maladaptive schemas (e.g., emotional deprivation), which are defined as core cognitive structures developed early in life. Schema work attempts to change these core (or tacit) cognitive structures (see Young et al., 2003).

Perhaps the two most striking extensions of the cognitive and behavioral psychology model are acceptance and commitment therapy (ACT; Hayes, Strosahl, & Wilson, 1999) and mindfulness-based cognitive therapy (MBCT; Segal, Williams, & Teasdale, 2002). ACT promotes the acceptance of inner experiences, discourages experiential avoidance, and encourages valued action (Hayes et al., 1999). ACT entails working directly with difficult inner experiences and stripping away the negative connotations of emotions such as sadness and anxiety (Blackledge & Hayes, 2001). ACT reduces stress, reduces anxiety, and promotes behavioral change in the workplace (Bond & Bunce, 2000).

MBCT (Segal et al., 2002) is intended for use in recovered, recurrently depressed individuals. MBCT uses a combination of techniques from cognitive therapy for depression (e.g., A. T. Beck et al., 1979) and the mindfulness-based stress reduction program (see Kabat-Zinn, 1990). MBCT significantly reduces the rate of depression relapse or recurrence in recovered, recurrently depressed individuals who have experienced three or more past major depressive episodes (Teasdale et al., 2000).

Another recent extension of cognitive and behavioral psychology is cognitive hypnotherapy (Dowd, 2000), which is an extension of the imagery-based work of Judith S. Beck (1995). Cognitive hypnotherapy uses both cognitive restructuring and hypnotic routines to modify automatic thoughts, cognitive distortions, and core beliefs. Hypnotherapeutic procedures enhance the long-term maintenance of gains made in cognitive—behavioral interventions (Kirsch, Montgomery, & Sapirstein, 1995; Schoenberger, 2000).

Education and Training

Since the 1960s, increasing numbers of clinical, counseling, and school psychological programs at the doctoral and postdoctoral levels have included strong behavioral, and later cognitive—behavioral, components. Behaviorally oriented approaches are also found in special education and other educationally related programs. Although some programs have a more cognitive and behavioral focus than others, the APA's Committee on Accreditation does not currently recognize specialty identifications other than clinical, counseling, and school psychology or some combination

thereof. The specialty practice of cognitive and behavioral psychology possesses training guidelines that have been accepted by the Council of Specialties and can be found on the Web site of the American Academy of Cognitive and Behavioral Psychology (http://www.aacbp.org).

An ideal applicant for specialty certification in cognitive and behavioral psychology would have practicum experience at the doctoral level that reflects a cognitive and behavioral orientation (e.g., training in the use of cognitive and behavioral interventions for various symptoms and disorders). Applicants would also have taken coursework in the theory and research of cognitive and behavioral interventions (e.g., principles of cognitive therapy, rational–emotive–behavior therapy, applied behavioral analysis). The postdoctoral experiences of an ideal candidate applying for specialty certification in cognitive and behavioral psychology would include proficiency in applying cognitive and behavioral psychological practices (e.g., assessments, case conceptualization, treatment planning, and interventions) to a variety of symptoms, populations, and disorders.

Cognitive and Behavioral Psychology Resources

Organizations

In 1987, it became apparent that practitioners who had little or no training or experience in cognitive and behavioral psychology were beginning to refer to themselves as "cognitive-behavioral psychologists." Accordingly, noted leaders in the field such as Howard Kassinove, Richard Suinn, Barry Lubetkin, Steven Fishman, E. Thomas Dowd, and Dennis Russo formed the American Board of Behavioral Psychology, which as of 2005 is known as the American Board of Cognitive and Behavioral Psychology. The American Board of Professional Psychology in 1992.

In addition, the American Board of Cognitive and Behavioral Psychology initiated the recognition of behavioral psychology by the APA's Committee for the Recognition of Specialties and Proficiencies in Professional Psychology. A national task force was developed, including the following behaviorally oriented organizations: the American Board of Behavioral Psychology, the Association for Advancement of Behavior Therapy, the Behavior Analyst Certifying Board, the Association for Behavior Analysis, and APA Divisions 25 (Experimental Analysis of Behavior) and 33 (Intellectual and Developmental Disabilities). The specialty of behavioral psychology was formally recognized by APA in 2000. A petition for continued recognition was recently submitted to the Committee for the Recognition of Specialties and Proficiencies in Professional Psychology, with a name change to Behavioral and Cognitive Psychology approved by APA's Council of Representatives in 2009. The specialty has no corresponding APA division other than Division 12 (Clinical Psychology), which serves as a home for cognitive and behavioral psychologists. Many cognitive and behavioral psychologists are also affiliated with the Association for Behavioral and Cognitive Therapies.

The American Board of Cognitive and Behavioral Psychology is also active in the Council of Specialties, an organization consisting of all specialties recognized by the Committee for the Recognition of Specialties and Proficiencies in Professional Psychology, the American Board of Professional Psychology, or both as well as specialties that are working toward recognition. The Council of Specialties coordinates all efforts to lobby for, and enhance specialty development and recognition in, professional psychology.

Print and Online Resources

There is a plethora of print and online resources that practitioners of cognitive and behavioral psychology may use to stay informed of the latest research and treatment developments. Although an exhaustive list of such resources is beyond the scope of this article, we list a few resources for convenience and to help the reader begin his or her search into the area. Individuals interested in pursuing the specialty practice of cognitive and behavioral psychology may benefit from familiarity with the following journals, among others: Behavior Modification, Behavior Therapy, Cognitive and Behavioral Practice, Cognitive Therapy and Research, Journal of Applied Behavior Analysis, Journal of Cognitive Psychotherapy, and Journal of Early and Intensive Behavior Treatment. The following books, among others, are also relevant: Applied Behavior Analysis (2nd ed.; Cooper, Heward, & Heron, 2007), Cognitive Behavior Therapy: Applying Empirically Supported Techniques to Your Practice (O'Donohue, Fisher & Hayes, 2003), Cognitive Therapy: Basics and Beyond (J. S. Beck, 1995), Cognitive Therapy Across the Life Span (Reineke & Clark, 2003), Cognitive Therapy for Challenging Problems (J. S. Beck, 2005), Clinical Handbook of Psychological Disorders: A Step-by-Step Treatment Manual (4th ed.; Barlow, 2008), Handbook of Cognitive-Behavioral Therapies (2nd ed.; Dobson, 2001), and Encyclopedia of Behavior Modification and Cognitive Behavior Therapy (Vols. 1-3; Hersen et al., 2005).

Among other Web sites, the following links may be useful to professionals in the field: http://www.aacbp.org/ (American Academy of Cognitive and Behavioral Psychology), http://www.abainternational.org/ (Association for Behavior Analysis), http://www.abct.org (Association for Behavioral and Cognitive Therapies), http://www.apbahome.net/ (Association of Professional Behavior Analysts), http://www.bacb.com/ (Behavior Analyst Certification Board), and http://www.eabct.com/ (European Association for Behavioural and Cognitive Therapies).

Summary

Cognitive and behavioral psychology is not just "talk" therapy. The specialty practice of cognitive and behavioral psychology is the application of behavioral learning principles, cognitive science, or both to the assessment and treatment of psychological problems. Interventions in cognitive and behavioral psychology are based on both theory and empirical findings. Although historically cognitive and behavioral traditions have often been at odds, the specialty practice of cognitive and behavioral psychology recognizes the important role of both traditions and the importance of designing interventions that will best address client presenting problems using behavioral means, cognitive means, or both. Individuals who identified with the specialty distinctiveness, rationale, traditions, procedures, training, and interventions discussed in this article are encouraged to consider specialty certification. Individuals interested in pursuing certification in the board specialty of cognitive and behavioral psychology can visit http://www.abpp.org/i4a/

pages/index.cfm?pageid = 3358 for more information and application forms.

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