The Development of the Common Factor Therapist Competence Scale for Youth Psychotherapy

Ruth Brown
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THE DEVELOPMENT OF THE COMMON FACTOR THERAPIST COMPETENCE SCALE FOR YOUTH PSYCHOTHERAPY

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy at Virginia Commonwealth University

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Abstract

THE DEVELOPMENT OF THE COMMON FACTOR THERAPIST COMPETENCE SCALE FOR YOUTH PSYCHOTHERAPY

By Ruth Christine Chanan Brown, M.A.

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy at Virginia Commonwealth University

Virginia Commonwealth University, 2011.

Major Director: Michael A. Southam-Gerow, Ph.D.,
Associate Professor
Department of Psychology

In order to continue to improve the effectiveness of psychotherapy, researchers must identify key change processes. Unfortunately, there are disparate views in the field about the relative importance and potency of specific techniques versus relationship factors. Few measures have been developed to examine the relative contribution of these factors, particularly for child-focused treatment. The Common-Factor Therapist Competence Scale for Youth Psychotherapy (COMP-CF) was developed to address this deficit. For this study, 142 video-taped sessions of child CBT for anxiety were observed and rated by independent coders using the COMP-CF. The measure demonstrated good reliability and internal consistency. Significant between-therapist and between-session differences were noted that warrant further exploration. The COMP-CF also demonstrated initial validity when compared to other observer-rater measures of therapeutic processes such as alliance, CBT-specific competence, and adherence. Recommendations for further development and refinement are discussed. Used in conjunction with adherence
measures, the competence measure developed here may help improve our understanding of the therapeutic process.
The Development of the Common Factor Therapist Competence Scale for Youth Psychotherapy

Some of the greatest gains in the science of psychotherapy have been made in identifying effective treatments to treat a range of psychopathology and improve the quality of life for many adults and children (Kazdin, 1999; Weisz, Jensen Doss, Hawley, 2005). Several empirically-based treatment strategies and factors have been identified that represent a range of theoretical orientations (Castonguay & Beutler, 2006; Norcross, 2001; Task Force on Promotion and Dissemination of Psychological Procedures, 1995). The goal of many treatment researchers has shifted from merely demonstrating efficacy, to developing more effective therapies (Insel, 2009). However, researchers must identify key change processes in order to increase the effectiveness of therapies. Accordingly, a very important question remains: why does therapy work (Kazdin, 1999, 2007)?

Each psychological treatment approach conceptualizes the pathogenesis of psychological disorders differently. Thus, the theoretical mechanisms of change that underlie treatment vary by theoretical orientation. In each session, the therapist uses several techniques thought to activate change processes in the client. Some of these are specific to a given approach (e.g. systematic desensitization, addressing intrapsychic conflicts), whereas some are common to most (e.g. empathetic listening, building a trusting relationship).

Unfortunately, there are disparate views in the field about the relative importance and potency of specific techniques versus the relationship between the therapist and client (Norcross, 2002). However, some have argued that the distinction between what has been called technique and relationship variables may be a false dichotomy that is limiting progress in the field (Castonguay & Holtforth, 2005; Chwalisz, 2001). Research examining the role of both relationship and techniques variables, will be important to advance the effectiveness of
psychotherapy.

To improve on existing therapies we must be able to measure all of the therapeutic processes that are believed to be responsible for change (specific and common, technique and relationship variables), so that the skills that are most effective at activating client change processes can be identified and disseminated (Kazdin, 2007). Therefore, research on therapeutic change processes that focus on isolating, measuring, and identifying potential factors of therapeutic change is needed. Treatment integrity research is an important step in beginning to address these questions by measuring what the therapist actually does in each session (Kazdin & Nock, 2003; Moncher & Prinz, 1991; Waltz, Addis, Koerner, & Jacobson, 1993). Measuring all components of treatment integrity can assist researchers and clinicians in determining what variables are responsible for outcomes (Belg et al., 2004).

There are three important components of treatment integrity: treatment differentiation, treatment adherence, and therapist competence (Waltz et al., 1993). Briefly, differentiation is the extent to which two treatments being compared to each other differ in theoretically meaningful ways. Adherence refers to the extent that therapists implement techniques and strategies as intended, whereas competence refers to the quality of treatment delivery. Furthermore, competence can refer to quality of implementation of treatment orientation-specific techniques or general therapeutic techniques (i.e. common-factors). These constructs will be described in more detail below. Unfortunately, there are few measures of any of these components of treatment integrity. Of the integrity constructs, therapist competence may be the least empirically studied component, particularly with regard to child and adolescent treatment (Karver, Handlesman, Fields, & Bickman, 2005). Developing measures of treatment integrity grounded in theory of therapeutic change are needed as a first step in systematically examining what are purported to
be critical change processes in psychological treatments.

To address this deficit, the focus of the proposed research study is the development and validation of a measure of common-factor competence for child and adolescent psychological treatment. Toward this end, I first review the state of integrity research, paying particular attention to therapist competence. Second, I propose a model of the common factors of psychotherapy drawing on several theories proposed in the adult literature (e.g. alliance, positive expectancies, focused treatment, new information, and customizing). This literature review serves the purpose of defining the “nomological net” (Cronbach & Meehl, 1955) of common factor competence. The goal of this initial step in the development of the COMP-CF was to cast a wide net to ensure that the content of the COMP-CF captures the full breadth of the target construct (Clark & Watson, 1995). Given the limited research on child and adolescent process factors, the common factors reviewed here will be taken primarily from the adult literature. In doing so, I was careful to consider how each factor would be adapted and applied to treatment with youths. I begin with a discussion of each factor in terms of its conceptual history.

Next, I describe the relevance of each factor to the three major theoretical orientations (psychoanalytic-based, person-centered, and cognitive and behavioral-based approaches). Although there are many more forms of psychotherapy, most can be considered offspring of these three approaches (Messer, 2001). Next, I review the empirical evidence for each factor in relation to measurement strategies and outcome. This step addresses the strengths and limitations of previous measurement strategies that will inform the development of the COMP-CF. Furthermore, relating each construct to outcome helps to establish the validity of each construct as a component of therapist competence. The discussion of each factor concludes with descriptions of observable therapist techniques that are hypothesized to be associated with that
factor, with particular consideration to the application in child/adolescent therapy. These observable behaviors will form the basis of the common-factor competence measure that will be developed and tested for this study.

**Treatment Integrity Research**

Treatment integrity (also referred to as treatment fidelity) has been implicated in the discrepancy between outcomes of research and practice and is an important next step in the quest to improve mental health services (Moncher & Prinz, 1991; Perepetchikova, Hilt, Chereji, & Kazdin, 2009). There are three primary components of treatment integrity: differentiation, adherence, and competence. A theoretical model of the relationships among these components is presented in Figure 1. The first component, treatment differentiation refers to the degree that two treatments being compared are actually different (Waltz et al. 1993). Treatment differentiation specifies those techniques that are unique to each treatment (prescribed techniques) in order to prevent implementation of competing techniques (proscribed techniques; Waltz et al. 1993). The second component, adherence to the treatment protocol refers to the extent that the therapist implements the prescribed techniques, while avoiding the use of proscribed techniques (Waltz et al. 1993). Adherence is used to measure the purity of the treatment and is therefore subsumed under differentiation (Perepetchikova & Kazdin, 2005). Finally, the third component, competence broadly refers to the quality of implementation (Waltz et al. 1993). Furthermore, competence can be divided into two categories: (a) competence related to a particular set of techniques (i.e., model-specific competence) and (b) general therapeutic skills (i.e., common-factors competence). I will elaborate on each of these components in the following section.
Treatment differentiation refers to the degree that the essential elements of two treatments being compared differ from each other (Waltz et al. 1993). Differences in outcomes can only be attributed to true differences in the treatments. Therapists use many different techniques in each therapy session. The term *technique* is used here to refer to moment-to-moment behaviors of the therapist used to activate change, versus *strategy*, which is

![Treatment Integrity Model](image)

*Figure 1. Treatment Integrity Model. Differentiation specifies which techniques are associated with a particular treatment model (proscribed vs. prescribed techniques). Adherence therefore is subsumed under differentiation. Competence refers to the quality of implementation of both prescribed (model specific techniques) and common techniques. Adherence and competence are separate, but overlapping, constructs. The common-factor techniques are considered important, but not unique to any one treatment, therefore are not subsumed under differentiation or adherence.*
used to refer to a series of techniques used to achieve a specific therapeutic goal. Each technique may be classified in one of four ways: (a) promoted by a particular treatment approach (i.e. prescribed), (b) prohibited by a particular approach (i.e. proscribed), (c) important but not unique to any one approach (common-factor), and (d) irrelevant to treatment (Waltz et al., 1993).

Threats to treatment differentiation include treatment implementation problems, and/or problems with the selection or design of the treatment protocols (Perepletchikova & Kazdin, 2005). Implementation drift is an example of a differentiation problem that can result from poor adherence to the treatment protocol, in which the therapist implements techniques that are part of a competing treatment, or fails to implement essential techniques of the target treatment. Furthermore, problems with treatment differentiation can result from poor specification in the treatment protocol. For example, techniques that are considered unique to one treatment may be present in the other treatment, but under a different name. As a result, treatment adherence checks are an important component of psychotherapy research to insure that therapists are implementing the manual as intended, and avoiding the use of proscribed techniques.

**Treatment Adherence.** Adherence refers to the extent to which the therapist delivers treatment in accordance with a treatment protocol (Moncher & Prinz, 1991). Thus, adherence is not thought of as a general construct (e.g. adherence to a theoretical approach), but rather is most often discussed in the context of a specific manual-based treatment delivered in outcome research where treatment manuals are often utilized to ensure consistent, standardized treatment (Luborsky & Barber, 1993). Measurement of adherence in outcome research is necessary to ensure that the therapy under investigation is the therapy that was actually implemented (Moncher & Prinz, 1991; Waltz, et al., 1993).

Studies examining the relationship between adherence and outcome have been mixed.
Several studies show that greater adherence is associated with better outcomes (Ablon and Jones, 2002; Bright, Baker, & Neimeyer, 1999; DeRubeis, & Feeley, 1991; Huey, Henggler, Brondino, & Pickrel, 2000). For example, Albon & Jones (2002) found that adherence to a cognitive-behavioral treatment for depression was related to greater outcomes. In a study examining adherence to the Oregon Model of Parent Management Training (PMTO), evaluators observed video-taped sessions and rated the extensiveness of delivery of PMTO techniques on a 9-point scale (Forgatch, Patterson, & DeGarmo, 2005). Results indicated that high adherence to PMTO techniques predicted improvement in parenting practices. Besides highlighting the fact that adherence can be measured using taped sessions and Likert-type scales, this study also demonstrated that adherence can be related to treatment outcome.

On the other hand, there are a few studies demonstrating little to no relationship between adherence to a manual and treatment outcome (Castonguay Goldfried, Wiser, Raue, & Hayes, 1996; Henry, Strupp, Beutler, Schacht, & Binder, 1993). For example, Castonguay et al. (1996) found that therapists who increased adherence to a manual in the face of patient difficulties had patients with worse outcomes. Henry et al. (1993) found that therapists newly trained in the use of a manual-based treatment demonstrated an increase in negative behaviors (e.g. hostile messages, negative affect) and a decrease in positive behaviors (e.g. warmth and friendliness). It has been suggested that this was the result of having too few training cases and that these behaviors would improve with further training (Miller & Binder, 2002). While a few studies suggest that adherence is not related to treatment outcome, these results can also be interpreted as a need for assessment of adherence and competence within the same study. Indeed, low competence may sometimes be a matter of adhering too rigidly to a manual, thereby reducing effectiveness (Hogue, Henderson, Dauber, Barajas, et al., 2008). The results of both of these
studies highlight the importance of assessing therapeutic competence.

**Therapist Competence.** Although considerable ambiguity on the definition of therapist competence remains in the literature (Milne, Claydon, Blackburn, James, & Sheikh, 2001; Shaw, et al., 1999; Waltz et al., 1993; Young & Beck, 1980), it is generally described as pertaining to the skill of the therapist in implementing treatment. The broad definition here has been divided into two categories: (a) competence related to a particular set of techniques (i.e., model-specific competence), and (b) general therapeutic skills (i.e., common-factors competence; Castonguay, 1993). In the following, I briefly review the literature on measuring competence of both categories. After reviewing the meager literature on the measurement of therapist competence, I offer a new conceptualization of common-factors competence. To accomplish that, I will first provide a broad definition of common-factors competence, including therapeutic alliance building, increasing positive expectancies, focusing treatment, instigating change, and customizing therapy to the client. Second, I review theoretical and empirical work relevant to each of these components. After the review, I posit a set of therapeutic practices to be tested in the proposed set of studies.

Several studies have shown that factors such as therapist warmth, exploration of the problem (Rounsaville, et al., 1987), therapists’ ability to structure the treatment (Shaw et al., 1999), and therapeutic alliance (Castonguay, et al., 1996; Svartberg & Stiles, 1994) are related to treatment outcome. However, only a few studies have examined the effect of multiple factors at the same time, and the actual measurement instruments are rarely available in the archival literature (Barber, Mercer, Krakauer, 1996; Young & Beck, 1980). Generally, as with adherence, competence has been measured using Likert-type ratings of audio or video taped therapy sessions (e.g., Shaw et al., 1999; Young & Beck, 1980). These studies have examined
competence in implementing a specific manual or a specific theoretical approach (e.g. cognitive therapy, interpersonal therapy, dynamic therapy). For example, Young and Beck (1980) developed the Cognitive Therapy Scale (CTS) to assess competence in implementing cognitive therapy. The CTS has been validated (Valis, Shaw, Dobson, 1986) and used in studies related to outcome (Shaw et al., 1999; Trepka, Rees, Shapiro, Hardy, & Barkham, 2004) and has since been revised (Blackburn et al., 2001). The CTS is an 11-item scale that is completed by raters using taped therapy sessions. The 6-point scale is anchored by clear definitions and examples of therapist behaviors to improve reliability. While the CTS includes items that measure general therapeutic skills, the primary focus is on cognitive therapy techniques (Young & Beck, 1980)

Because these studies generally measure competence in the context of manual-based treatments they tend to carry some implicit association with adherence. However, there is a difference of opinion regarding when to measure competence and the extent to which competence is related to adherence. In some studies, the same observer rates adherence and competence at the same time (Barber, Mercer, et al., 1996; Carroll et al., 2000). This simultaneous rating strategy may be the reason measures of adherence and competence have been highly correlated. Thus, measuring competence can involve Likert-type ratings of taped therapy sessions, though competence ratings might best be completed by an observer who is not also rating adherence. Another issue is whether competence is viewed as being subsumed within adherence. If competence is subsumed under adherence (e.g., Kazantzis, 2003), a particular technique must be observed in order for therapist competence to be rated. By rating competence only in relation to prescribed techniques (e.g. model-specific competence, Figure 1), researchers limit the range of therapist behaviors that can be sampled and risk missing potentially meaningful relationships between competence and outcome. On the other hand, if competence
and adherence are separate, but overlapping constructs, a therapist who does not use a particular technique with a particular client may still be demonstrating a high level of competence. Examining those techniques that are not unique and not specified in a treatment manual (e.g. common-factor competence, Figure 1) allow us to examine a wider range of therapist behaviors that may account for variance in outcome. Viewing competence and adherence as separate constructs suggests that competence cannot be rated based simply on the presence or absence of a particular theoretical-specific technique, but rather demands an understanding of therapeutic factors that are important, but not specified in a manual or a given orientation (Waltz et al., 1993). Furthermore, it is possible to maintain adherence to an overall-theoretical approach or conceptualization while deviating from a specific protocol. For this study, I consider competence and adherence related, but separate constructs reflecting the need for flexible delivery.

Comprehensive competence assessment needs to include treatment-specific and general competence measures. As mentioned earlier, most existing measures of competence are based on treatment techniques unique to a theoretical orientation, primarily Cognitive-Behavioral Therapy (CBT) techniques. A broader measure of therapist competence is needed in order to examine the contribution of common factors underlying psychotherapeutic treatments. In order to develop a measure of common-factor competence, those factors that are considered common to psychotherapy must first be identified and defined. The following section provides an overview of the various ways common factors have been conceptualized and the proposed model of common factors that will guide the development of the Common Factors Therapist Competence Scale-Youth (COMP-CF).

What are the Common-factors?

Current Issues. Psychotherapy process research is riddled with definitional and
methodological issues in the identification of common-factors. The most basic issues are inconsistencies in terminology and the scope of investigation. These issues will be briefly reviewed, followed by a review of various common-factor models, and a synthesized model of common factors that will guide the development of the COMP-CF measure developed for this study.

There is some ambiguity in the literature around the definition of common factors. The terms common-factor and nonspecific-factor have often been used interchangeably. However, Castonguay (1993) argued that using these terms as synonyms leads to confusion about the importance and function of various therapeutic factors. For example, the term non-specific can refer to common elements (e.g. not specific to any one approach), inactive elements (e.g. elements thought to have no specific effect on the client), or elements whose effects are unknown (e.g. elements whose effects on the client are unspecified). Alternatively, the term common-factor provides greater precision in describing the element in question as having therapeutic similarities (common elements) across different approaches (Castonguay, 1993).

That said, even though the specific effects (e.g. mechanisms of change) of an element may not be completely understood, they can be considered to be active elements that are common to different therapeutic approaches. In fact, there is not a single treatment element (unique or common) in which the underlying mechanism has been empirically proven (Kazdin, 2007). Even the change mechanism of the therapeutic alliance, which is the most widely accepted common-factor, is under debate due to the lack of satisfactory mediation analysis (Kazdin, 2007).

The conceptualization of common factors also differs in terms of how broadly they are defined (Sprenkle & Blow, 2004). Some define common factors narrowly as those factors
operating in all approaches, but under different names (Frank, 1971; Orlinsky & Howard, 1987). For example, free association and identification of automatic thoughts may be unique techniques associated with psychoanalysis and cognitive therapy, respectively, which function to increase self-awareness of unconscious processes. Under this perspective, increasing awareness of unconscious processes could be considered a common factor. By contrast, broader approaches view common factors as elements in the treatment process that operate apart from specific techniques (Sprenkle & Blow, 2004). These include the therapeutic relationship, and client, therapist, and context variables (e.g. readiness for change, ability to empathize). These common factors may or may not be the primary mechanisms of change. For example, person-centered approaches view the therapeutic relationship as the sole mechanism of change in therapy by activating the client’s self-healing capabilities, with all other techniques being relatively superfluous (Bohart & Tallman, 1999). Interpersonal psychodynamic approaches view the therapeutic relationship as curative, as a means of helping the client become aware of and alter interpersonal interaction patterns (Sullivan, 1953). Likewise, cognitive-behavioral approaches view the therapeutic relationship as important, but not the primary mechanism of change (Beck, Rush, Shaw, & Emery, 1979). In sum, the core of this disagreement is whether (a) all treatments tap the same underlying mechanisms, or (b) some are unique and some are common. There is little consensus in the field regarding the broad or narrow role of common factors, and without empirical research little advances will be made in moving this theoretical debate forward.

A first step towards understanding the mechanism through which the therapeutic relationship, or any other treatment element, functions is the operationalization, measurement, and scientific examination of the relevant constructs. The purpose of the proposed study is to identify those common mechanisms and develop a measure of common-factor therapist
competence to examine the role these mechanisms play in child and adolescent therapy. In this review, I will use the term *common-factor* to refer to treatment elements that are shared by many treatment approaches, regardless of whether the specific pathways or change mechanisms have been empirically identified. In addition, I will approach common-factors from a broader assumption that while many elements that are considered “unique” overlap with common mechanisms, there are also elements which are unique to specific treatment approaches.

For therapists to be effective at facilitating positive change, they must be competent at delivering common and unique treatment elements. Likewise, researchers conducting studies testing more than one treatment program must be able to demonstrate that therapists in both groups are delivering both the common and unique elements with equivalent levels of skill. In this section of the review, I will examine several theories of common-factor competence and describe the synthesis of these elements into the factors that will form the common-factor competence measure developed for this study (see Table 1). I will begin with a review of the processes that are posited to operate in all, or most, therapeutic approaches.
Table 1.

*Synthesis of theories of common-factors for a common factors competence measure.*

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Notes: Divisions between factors are used to demonstrate how factors were grouped to form the COMP-CF factors.

*Frank (1971) used instruction (precept), examples, and self-discovery as examples of the Providing New Information factor.

Common Factor Models. The identification of therapeutic elements that are common to the various treatment approaches has been a focus in the literature for decades (e.g. Frank, 1971; Grencavage & Norcross, 1990; Milne, et al., 2001; Orlinsky & Howard, 1987; Shaw, 1999). Although not all studies identifying common-factors can be reviewed here, several of the most influential papers are presented in Table 1.

Frank (1971) was one of the first to identify commonalities across treatment approaches.
He asserted that all forms of therapy (including faith healing and other “non-scientific” approaches) have similar processes that underlie the various techniques associated with specific schools of therapy. These factors included: (a) an intense and emotionally charged relationship with a helping person, (b) a rationale that explains the causes and treatment, (c) provision of new information through self-discovery, didactic training, or group members (if group format), (d) increased expectation of help through therapist credibility and the instillation of hope, (e) provision of successful experiences through accomplishing behavioral tasks and/or gaining new insights, and (f) facilitation of sufficient emotional arousal for learning to take place (Frank, 1971). According to Frank, the benefit of having different therapeutic approaches is to benefit the different needs and preferences of clients. Some clients prefer the slower pace of “interview” therapies, while others want the direct approach of behavior therapies.

Orlinsky and Howard’s Generic Model of Psychotherapy (1987) outlined five processes of psychotherapy they believed to operate in all forms of psychotherapy. They argued for the identification of common-factors as a means to avoid the relegation of active therapeutic processes to particular therapy “brands.” These processes included: (a) the therapeutic bond, (b) therapeutic openness and involvement, (c) the therapeutic contract, (d) therapeutic interventions, and finally (e) therapeutic realization. Orlinsky and Howard further proposed a model of how these processes interact to produce therapeutic change.

According to their model, the therapeutic contract is the initial phase of treatment in which initial expectations (e.g. role-expectations) and the foundation of the therapeutic relationship are developed. Following the establishment of the therapeutic contract the therapeutic interventions are selected based on the client's problem presentation, therapist's conceptualization, the therapist's technical intervention, and the client's participation. The
therapeutic contract also forms the basis of the therapeutic bond. The therapeutic bond is composed of the therapist's and the client's role investment (e.g. working alliance), expressive attunement (e.g. empathetic resonance), and acceptance/collaboration (e.g. mutual observation). The therapeutic bond influences the client's participation in the therapist's technical intervention. The effects of a therapeutic intervention and therapeutic bond influence the client's self-relatedness, which Orlinsky and Howard conceptualized as openness versus defensiveness. The more open and self-related client is, the more therapeutic realizations the client will be able to experience. These therapeutic realizations influence the emotional, behavioral, and cognitive changes at post session. Orlinsky and Howard also conceptualized the therapeutic bond as influencing this post-session outcome through remoralization (based on Frank’s 1971 conceptualization). The therapeutic realizations also impact the therapeutic bond creating a mutually reinforcing therapeutic cycle.

Grencavage & Norcross (1990) conducted a review that identified as many as 89 common-factors, with between 1 and 20 suggested per paper reviewed. They coded the common-factors proposed in each study into five broad categories: client characteristics, therapist characteristics, change processes, treatment structure, and therapeutic relationship. The factors with the most consensus were alliance, opportunity for catharsis, acquisition and practice of new behavior, client’s positive expectancies, beneficial therapist qualities, and the provision of rationale. However, the agreement rates ranged from only 24 to 56% on these six factors (Grencavage & Norcross, 1990). The authors acknowledged the difficulty of identifying categorizing therapeutic common factors due to differences in terminology and conceptualization across the literature. Therefore, they call for the use of theory-neutral or generic language in practice and research of therapeutic processes. Furthermore, they call for confirmation of
proposed commonalities through empirical observation of actual psychotherapy sessions.

The most recent attempts to identify common factors were spurred by the publication of the American Psychological Association’s (APA) Division 12 (Clinical Psychology) Task Force on Promotion and Dissemination of Psychological Procedures (TF-PDP; 1995) list of empirically supported treatments. While many praised their efforts, the task force came under heavy criticism, primarily for favoring CBT treatments, emphasizing treatment techniques, and ignoring contributions of the therapeutic relationship (Norcross, 2001).

This view was echoed in Addis & Krasnow’s (2000) survey of practicing therapists’ attitudes toward the push for treatment manuals. Practitioners and researchers feared that the push for evidence-based treatments (EBTs) and treatment manuals overly simplify the complex therapeutic process and turn therapists into technicians rather than skilled, caring therapists. As a result, APA’s Division 29 (Psychotherapy) developed the Task Force on Empirically Supported Relationships (TF-ESR) headed by Norcross (2001). Norcross assembled a task force to review the vast literature on therapeutic relationships. The central assumption of the task force was that the underlying change mechanism of psychotherapy is the therapeutic relationship, and responsiveness to the client’s needs (Norcross, 2001). The result was a collection of demonstrably effective and probably efficacious relationship factors. Factors were considered demonstrably effective when the task force members agreed that the element was clearly established based on the size and consistency of the research base. Factors were considered probably efficacious when the research base was small, inconsistent, or supportive but flawed. Each was categorized into either “general elements” or elements related to “customizing the therapy relationship to individual [client] needs.”

Alliance, empathy, and goal consensus/ collaboration were the only general elements that
met criteria as demonstrably effective. Probably efficacious elements of the general relationship included positive regard, congruence, feedback, repairing alliance ruptures, self-disclosure, management of countertransference, and relational interpretations. These general element factors of the therapeutic relationship did not meet criteria for demonstrably effective due to lack of direct research on relationship factors as change mechanisms (Ackerman et al., 2001; Norcross, 2001). However, there is considerable conceptual overlap of these elements. For example, empathy, positive regard, congruence, and collaboration are considered by many researchers, even within the task force, to be aspects of the therapeutic alliance rather than independent constructs (Horvath & Bedi, 2002). Therefore, there is relatively strong evidence to suggest that these elements should be considered important elements of competent therapeutic practice.

Three factors met criteria for demonstrably effective elements of customizing the therapeutic relationship: resistance, functional impairment, and coping style. Promising elements for customizing the individual relationship included stages of change, anaclitic/sociotropic and introjective/autonomous dimensions, expectations and preferences, assimilation of problematic experiences, attachment style, religion and spirituality, cultural and demographic diversity, and personality disorders. One particularly conspicuously missing factor relevant for the proposed study is customization for age or developmental stage.

Although the TF-ESR filled in important gaps in the definition of evidence-based practice, it was not without criticism. Many researchers criticized the task force for ignoring important technique factors that have been demonstrated to be related to outcome (Castonguay & Beutler, 2006). As a result, APA Division 12 created another task force: the Task Force on Empirically Based Principles of Therapeutic Change (TF-PTC; Castonguay & Beutler, 2006). The TF-PTC aimed to bridge the two competing perspectives by identifying principles common
to theoretical orientation and included both treatment and relationship factors identified by the TF-PDP and the TF-ESR. The TF-PTC reported that theory-specific techniques and relationship factors each individually account for no more than 10% of the variance in outcomes (Castonguay & Beutler, 2006). Their aim was to identify “global strategies of interventions” that may have different names depending on orientation.

The task force report was a step forward in understanding the change process, but the authors note that the principles are merely empirically-based or derived rather than empirically supported because very few, if any, of the principles in the review have been directly measured, manipulated, or investigated as mediators of change. Factors were considered empirically-based if they were included in the TF-PDP or TF-ESR reports, or greater than 50% of empirical studies supported efficacy. The TF-PTC reviewed common elements as well as elements specific to the treatment of anxiety, depression, substance abuse, and personality disorders. The following elements were considered common empirically-based principles: working alliance, congruence/authenticity, addressing alliance ruptures, empathy, collaboration, structured focused treatment, facilitated self-exploration, addressing intrapersonal aspects, addressing interpersonal aspects, accurate relational interpretations, limited relational interpretations, and appropriate responsiveness (Castonguay & Beutler, 2006).

In sum, the majority of studies focusing on common factors rely on meta-analyses or theoretical reviews. The common factors presented in each of the studies reviewed (with the exception of the Division 12 and 29 Task Force Reports) appeared to be based on theoretical as opposed to empirical research, and there was little consensus of common factors. Despite differences in the number and label of factors that have been identified, there is considerable overlap of many of the factors. For example, Frank (1971) identifies alliance as a single broad
factor, whereas Norcross (2002) identified approximately seven separate common-factors related to alliance. Although these studies lack direct empirical research, they serve as a theoretical basis to guide the development of a common-factor measure that can be used to address the questions of how common the proposed common-factors are, and the contribution of unique and common factors on outcome. There are numerous ways of grouping and categorizing the common-factors recommended in the literature. For the proposed studies described later, five broad factors were identified to reflect therapist behaviors associated with the common-factors: (a) alliance-building, (b) facilitating positive expectations, (c) instigating change, (d) focusing treatment, and (e) responsiveness (Table 1.). These factors were synthesized from the literature; some items represent a composite of more than one factor identified in the literature when those factors shared common mechanisms (e.g. empathy and collaboration predicting alliance formation). In the following five sections, I describe each of the five scales comprising what I am calling the Common Factor Therapist Competence Scale-Youth (COMP-CF) measure. The discussion of each factor includes a focus on the theoretical conceptualization, empirical literature supporting each factor (when available), and observable therapist behaviors associated with each one.

Alliance Building

The term alliance has evolved over time, and despite the increasing body of research on alliance there is currently no universally accepted definition. Alliance broadly refers to the quality of the relationship between the therapist and client (Horvath & Bedi, 2002). The therapeutic relationship is the foundation of several treatment approaches (e.g. supportive and psychodynamic; Rogers, 1957; Freud, 1946, respectively) and has gained recognition as an essential element in behaviorally-based treatments (Kendall & Morris, 1991; Shirk & Karver, 2003). In fact, the alliance is often cited as the most robust and widely accepted process factor in
therapy and has been the subject of several reviews and meta-analyses of adult and youth psychotherapies. These reviews show that alliance accounts for a moderate to large portion of variance in outcome, sometimes more variance than any other specific technique factor (see Crits-Christoph, Connolly Gibbons, Hamilton, Ring-Kurtz, and Gallop, 2011; Horvath & Bedi, 2002; McLeod, 2011; Shirk & Karver, 2003). As a result, theories of alliance appeal to the many “eclectic” practitioners and researchers who are moving toward integrated theories of treatment because it appears to share common ground between different treatment approaches.

As the science of psychology has shed light on the benefits of a strong therapeutic alliance, more precision in the definition and mechanism of alliance is needed. Greater specificity of alliance may help inform therapists about what aspects of the relationship they need to develop in order to be most effective (e.g. competent) with their clients. Toward this end, I identify common therapist strategies for building alliance for inclusion in a measure of common-factor therapist competence. In this section, I first review the conceptual history of the construct of alliance, including a brief review of how each of the major therapeutic approaches conceptualize the therapeutic relationship. Then, I review the empirical evidence on alliance and outcome. I will then review strategies for measuring alliance, focusing primarily on the youth literature. Finally, I will discuss how existing measures of alliance will help influence the alliance subscale of the therapist competence measure.

**Conceptual History of Alliance.** With few exceptions (e.g. bibliotherapy), psychotherapy cannot exist without a relationship between therapist and client. Once considered a unidimensional construct, alliance has been broken down into separate components, each believed to have specific functions in the therapy process. Although early theorists began conceptualizing the therapeutic relationship and using the term “alliance” (Horvath & Bedi,
Greenson (1965, 1967) made early attempts to identify the components of alliance and distinguished between the working alliance (agreement on tasks) and the therapeutic alliance (personal bond).

Luborsky (1976) further developed Greenson’s theory with the two stage alliance theory. This view of alliance is akin to Anna Freud’s (1946) conceptualization of the therapeutic relationship as occurring in developmental stages. According to Luborsky, Type I alliance (which refers to establishing a trusting affective bond) is a paramount task in the initial phases of treatment. During this phase, the therapist must work to ensure that the client believes the therapist is a source of help, while the therapist provides warmth and support. Type II alliance (the working alliance) develops in later stages of treatment in which the client develops an investment in therapy, including the therapeutic process, the concepts underlying the theory, and a shared responsibility in achieving the desired outcome (Luborsky, 1976).

Bordin (1975, 1989, 1994) focused on working alliance and suggested three components: agreement on therapeutic goals, consensus regarding tasks of therapy, and bond between therapist and client. He suggested that different therapies place differing value on each component. For example, many interpersonal and person-centered approaches place more emphasis on the bond between therapist and client, while as CBT approaches may place more emphasis on the collaboration of therapy tasks. As therapy progresses, alliance naturally fluctuates and the therapists’s main responsibility is to repair alliance ruptures (Bordin, 1975, 1989, 1994). Several studies examining the factor structure of Bordin’s model of alliance have failed to find support for the three factor model of alliance and instead report either a single-factor (DiGuisepppe et al., 1996; Faw et al., 2005, Karver et al., 2008; McLeod & Weisz, 2005), or a two-factor structure more similar of Greenson’s with items reflecting “task” alliance and
“bond” alliance (Shirk & Saiz, 1992).

**Role of Alliance in Major Therapeutic Approaches.** The interaction between therapist and patient is the fundamental component of psychotherapy. As the study and practice of psychotherapy has grown and branched out, so too has the definition and conceptualization of the therapeutic alliance. This review will follow the conceptualization of alliance as it developed across several psychoanalytic approaches. I will then briefly review person-centered approaches, including play therapy. Lastly, I will review the conceptualization of alliance from behaviorally-based therapies. While there are certainly more therapeutic approaches, the scope of this paper does not allow each theory to be individually addressed. I will therefore speculate that most approaches would identify one of these previously mentioned approaches as foundational to it theoretical lineage.

**Role of alliance in psychoanalytic-based therapies.** Being the oldest tradition of psychotherapy, psychoanalytic theories have evolved over the last hundred years. As a result the theories and practices are quite diverse, and sometimes quite divergent. According to Greenberg & Mitchell (1983), psychoanalytic models differ along four fundamental issues: (a) basic building blocks of experience (“metaphysical commitments”: e.g. drives, wishes, goals, values, interpersonal relations, identifications, choices, action, etc), (b) motivation (e.g. the basic motivations for humans), (c) development processes (e.g. the crucial events in human development), and (d) structure (e.g.: the underlying structure of personality, what mediates between past events and present experience). The major split in psychoanalysis is between original Freudian drive models and Fairbairn and Sullivan’s interpersonal models based in differences on the basic building blocks of experience (e.g. drives vs. relations with others; Greenberg & Mitchell, 1983). I will focus my attention on two major branches of psychoanalytic
theory: early Freudian drive theories and relational theories.

Drive theories. The idea that the therapist and client must form a collaborative relationship toward treatment goals began with Sigmund Freud’s (1912) assertion that a meaningful relationship was necessary to keep the client engaged in treatment and willing to face fearful unconscious processes. His theories of transference and countertransference created the foundation for understanding the interplay between the therapist and client in the change process. Freud’s early ideas about the relationship between the therapist and the client focused primarily on the transference. Transference are the feelings the patient has about the therapist and, according to Freud, is the product of the patient’s unconscious processes (e.g. fantasies, drives, defenses) rather than the immediate interaction between the therapist and the client (Freud, 1909). In this early view, transference was to be used to give the therapist insight so that these underlying processes could be brought into awareness and directed toward a more adaptive goal (Freud, 1909). In later writings, Freud begins to address transference as an important therapeutic tool. Freud (1940) held the notion that collaboration and positive transference kept that patient in analysis despite the difficult nature of facing one’s unconscious fears. According to Freud (1940), the relationship between the therapist and the client was necessary to help the client be more willing to explore and resolve unconscious content that was previously too anxiety provoking for the client to face on his or her own. Despite the recognition of the important role of the therapeutic relationship it was not considered a primary focus of treatment.

In later years, Anna Freud extended the conceptualization of the therapeutic relationship to work with children (1946). A. Freud described this as “affectionate attachment” and was prerequisite for all future work. She further expanded the concept by delineating the developmental function of interpersonal relationships and identifying the multiple mechanisms
though which the therapeutic relationship facilitates change. According to Anna Freud, the ability of the child to form an attachment to the therapist was the result of the relationships the child had formed with significant others in his/her life preceding. Immature attachments were the result of an interpersonal void caused by distant and cold caregivers. Children with this background use the therapist to satisfy the need for interpersonal contact. Once satisfied, the child is able to build more developmentally appropriate relationships. More mature therapeutic relationships are characterized by the recognition that the therapist is a source of help in overcoming interpersonal and emotional problems. In this form, the therapeutic relationship is a collaborative tool used to achieve the benefits of therapy (Freud, 1946).

Relational theories. From the perspectives of relational psychodynamic theories, people are motivated (driven) to form interpersonal relationships (Greenberg & Mitchell, 1983). In contrast to Freud’s objects (e.g. the person toward whom libidinal or death drives are directed) objects in modern object-relations theory are mental representations of others from the client’s past. As individuals develop, they begin to form their identity based on relationships to early objects (e.g. self-object relations). Healthy self-object relations allow the individual to progress though developmental stages. Pathology is the result of early trauma or malignant self-object relationships that causes internalization of unhealthy objects and development of an unhealthy framework of interpersonal relationships (Greenberg & Mitchell, 1983). For psychodynamic, object relations, and interpersonal-based therapies, the building of a healthy trusting relationship with the therapist provides a corrective emotional experience that the client internalizes and uses as a model to form healthier relationships with others (Sullivan, 1953). The therapeutic alliance is necessary to recreate a healthy self-object relationship with the therapist. The bond component of the therapeutic alliance is paramount for individuals with poor quality object-relations, as too
much emphasis on rationale collaboration maybe viewed as invalidation or implicit criticism (Berkowitz, 1982).

**Role of alliance in person-centered based therapies.** The therapeutic relationship is both necessary and sufficient to Rogerian person-centered therapies. Rogers (1957) asserted that six conditions are necessary for personality change and that all other therapeutic techniques, if they are successful operate through these conditions. These conditions, which must all be present, contend that (a) in psychological context (b) the client, who is in a state of incongruence with the (c) therapist who is in a state of congruence in the relationship (d) feels unconditional positive regard and (e) empathy for the client and attempts to express these feelings and (f) is received by the client will result in meaningful psychological change (Rogers, 1957). While the provision of this therapeutic environment is necessary for change, this theory places the client in the center of the change process. As explained by Bohart & Tallman (1999) the reason for the dodo-bird verdict (i.e. all therapies are essentially equally effective; Luborsky, Singer, & Luborsky, 1975) is that clients have the ability to take the techniques a therapist gives them to resolve their psychological problems. The underlying assumption is that each person has a natural tendency to move towards growth. The supportive environment, provided by the therapist, allows the client to confront difficult experiences and find personal psychological growth.

Traditional child play therapy takes a person-centered approach to alliance (Landreth, 2002; Wilson & Ryan, 2005). Influenced by the work of Rogers, Axline (1942) began to formulate a theory of child therapy that taps the child’s naturally expressive play as a means to facilitate psychological growth. According to Axline, the therapeutic relationship is the necessary and sufficient means to facilitate healthy emotional and interpersonal growth (Shirk & Saiz, 1992). The therapist’s offerings of warmth, empathy, and acceptance during play tap the
innate ability of the child to change and grow.

**Role of alliance in cognitive and behavioral based therapies.** Freud’s view of the therapeutic alliance is surprisingly similar to the view of alliance held by cognitive and behavioral therapies. Early behavioral therapies placed little emphasis on the relationship between the therapist and client (Shirk & Saiz, 1992). While it doubtful that a behavior therapist would deny the importance of building a relationship with the client, it was not explicitly included in the therapeutic conceptualization. Behavioral and cognitive-behavioral therapies tend to emphasize the use of specific procedures based on principles of learning and cognitive theories and some have speculated that this may result in other common factors, such as the relationship, to be overshadowed (Shirk, Gudmundsen, Kaplinski, & McMakin, 2008; Shirk & Saiz, 1992). While early behaviorists may have overlooked the specific need for alliance, it has not remained so. Behaviorists began to explicitly pay attention to role of a therapeutic alliance as a means to create and maintain client motivation and engagement (Beck, 1979; Kanfer & Grimm, 1980). According to these approaches the alliance is viewed as way of engaging the client in the difficult tasks of treatment, specifically addressing maladaptive cognitions and behaviors (Beck, 1979; Chu, Choudhury, Shortt, Pincus, Creed & Kendall, 2004). For example, Chu & Kendall (2004) found that child involvement, measured before exposure sessions in CBT, significantly predicted outcome, while early-treatment involvement did not. Furthermore, emphasis is placed on the collaborative component of alliance in which the therapist places him/herself in the role of “coach” to help the child gain new understanding and skills (Chu & Kendall, 2004).

In sum, while there may be disagreement about the specific role of alliance in therapy, there is agreement that alliance is a critical aspect of successful treatment of children and adults.
For person-centered therapies, the provision of warmth, empathy, and acceptance is the active ingredient that leads to open exploration and activates the client’s innate self-healing capabilities (Bohart & Tallman, 1999). Other approaches tend to view the therapeutic alliance as necessary, but not the only responsibility of the therapist. These approaches believe that while alliance is important, there are additional changes that the therapist must help the client to make, whether it be the acquisition of new skills, gaining insight, or changing the underlying psychic structure.

**Empirical evidence for alliance.** Although the relationship between alliance and outcome has been widely accepted, the magnitude of the effect of alliance in therapy is more complicated than it appears. Several meta-analyses have demonstrated a significant relationship between alliance and outcome for adults and youth across several therapeutic modalities with moderate mean effect sizes, ranging from $r=.21$ to $r=.26$ (Horvath & Bedi, 2002; Martin, Graske, & Davis, 2000; Shirk & Karver, 2003). McLeod (2011), however, found that effect sizes in the youth psychotherapy literature were much smaller ($r=.14$) than previously estimated when using more stringent methodological selection criteria. On the other hand, Crits-Christoph, Gibbons, Hamilton, Kurtz, and Gallop (2011) suggested that the alliance-outcome relationship may be even larger than earlier estimates and demonstrated the effects of aggregating multiple early sessions ($r=.36$) compared to a single early-session ($r=.14$). Methodological factors, such as timing of the alliance assessment, the use of single versus aggregated assessments, and client problem type, have been demonstrated to impact the magnitude of the relationship between alliance and outcome, and until further systematic research is conducted exploring the effects of the factors it can be difficult to determine which represent the most accurate estimates of alliance (Crits-Christoph et al., 2011, McLeod, 2011).

Another issue affecting the interpretation of alliance effects is, as Kazdin (2007) points
out, the large body of research on alliance and outcome has depended on correlational designs (degree of alliance compared to degree of client improvement). While these studies clearly suggest a significant relationship between alliance and outcome, correlational research is not sufficient to establish a causal relationship. Unfortunately, most studies do not include measures of plausible alternative process variables to rule out their effects, nor do they measure the process and outcome variables throughout therapy to establish the temporal precedence necessary to determine causation (Kazdin, 2007). For example, some studies have conducted time-series analyses of process factors and have found some evidence to suggest that initial client improvement can influence the formation of alliance in the first few sessions (Barber, 2000; DeRubeis & Freely, 1990; Tang & DeRubeis, 1999). One explanation for this finding is that the client experiences some symptom relief from the initial sessions which then helps develop a bond with the therapist and increases the likelihood of the client agreeing with the therapeutic tasks presented by the therapist (Frank, 1971; Kazdin, 2007; Tang & DeRubeis, 1999). This highlights the need for lines of process research that measures constructs of interest, such as alliance, throughout the course of therapy.

Taken together, these studies lend some support to the notion that alliance encourages client involvement in addressing key therapeutic targets, whether that is facing unconscious fears, exploring painful childhood memories, or engaging in an exposure. Indeed, Karver et al. (2008) found that alliance was strongly associated with client involvement in both CBT and supportive non-directive child therapies. Although the debate about the specific role of alliance continues, it is clear that therapist efforts to build alliance is an important task of therapy and is therefore an important component of therapist competence.

Horvath and Bedi (2002) reviewed several contributions of the therapist that facilitates
alliance. These include beneficial interpersonal skills, provision of empathy, communication skills, and collaboration that appear to be common to most conceptualizations of alliance regardless of the theoretical factor-structure (Horvath & Bedi, 2002).

**Strategies for measuring alliance.** Elvins and Green (2008) identified 32 measures of alliance in the adult and child literature representing a wide range of conceptualizations and methodologies (e.g. self-report vs. observation). While many measures of alliance exist, there are four main measures that are widely used in the adult literature. First, the Penn Helping Alliance scales (Luborsky, Crits-Cristoph, Alexander, Margolis & Cohen, 1983; Alexander & Luborsky, 1987) are based on Luborsky’s two-type theory of alliance and captures Type I, warm supportive relationship, and Type II, sense of collaboration and sharing of therapeutic responsibilities. The Vanderbilt Therapeutic Alliance Scale, part of the Vanderbilt Instruments (Suh, O’Malley, & Strupp, 1986) developed specifically for dynamic therapies, measures patient and therapist contributions and client-therapist interactions. The Working Alliance Inventory (WAI; Horvath, 1981, 1986) based on Bordin’s theory of alliance includes items measuring collaboration, goal consensus, agreement on tasks of therapy, and personal bond. The WAI has both therapist and client self-report versions. The fourth, is a series of measure that originated from the California Toronto Scales (Marmar, Gaston, Gallager, & Thompson, 1989) and underwent several revisions, resulting in the most recent California Psychotherapy Alliance Scale (CALPAS; Gaston & Marmar, 1994). The CALPAS is based primarily on the psychodynamic conceptualization of the therapeutic alliance and assesses four dimensions: patient working capacity, patient commitment, therapist understanding, and working strategy consensus (Horvath & Bedi, 2002). Each alliance measure assesses a slightly different formulation of the therapeutic relationship, however there are commonalities that include personal bond, energetic
involvement, collaboration on tasks and goals (Horvath & Bedi, 2002).

Measures of adult alliance has proliferated, yet child and adolescent measures are just beginning to be developed (Elvins & Green, 2008). One such measure, the Therapy Process Observational Coding System-Alliance Scale (TPOCS-A; McLeod & Weisz, 2005) is an observer rated measure the affective bond between the client and therapist and the collaborative involvement in treatment tasks, however, psychometric studies suggest that bond and task elements may not represent distinct constructs (McLeod & Weisz, 2005). Previous studies on the TPOCS-A have demonstrated adequate psychometric properties and significant relationships with outcome for CBT and treatment as usual approaches (Chiu, McLeod, Har, & Wood, 2009; Lerner, Mikami, McLeod, 20011; McLeod & Weisz, 2005).

**Therapeutic practices that increase alliance.** Evidence that alliance is an important common factor is compelling. Most studies of alliance assess the extent to which alliance has been established in the therapeutic relationship. In other words, they measure alliance as an outcome. While examination of these alliance measures may serve as a starting point, in order to measure therapist competence we must determine which therapist strategies facilitate the development of alliance, specifically with child and adolescent clients. The Adolescent Alliance Building Behavior Scales (AABBS; Shirk, Gudmundsen, McMakin, Dent, & Karver, 2003) were developed to identify observable therapist behaviors that facilitate alliance formation (elicits information, explores subjective experience, formulates goals, presents treatment model, presents collaborative approach, therapist recalls prior client information, therapist distorts or misunderstands, fails to acknowledge teen emotion, criticizes teen, and expresses support of teen (Karver, et al., 2008). These items were culled from literature on alliance and treatment manuals for adolescent therapies (Karver, et al., 2008). Preliminary research on the AABBS is promising.
In a study with a small sample (n=23) of depressed adolescents who had attempted suicide and received either CBT or non-directive supportive therapy (NST) suggested that therapist behaviors may differentially predict alliance depending on the treatment approach (Karver et al. 2008). They found that therapist rapport building behaviors had a positive relationship with alliance in the CBT group only. They also found that while socialization to treatment behaviors had a positive relationship with alliance in the CBT group, it had a negative relationship with alliance in the NST group (Karver et al., 2008). It should be noted however that these results are based on a preliminary study with a small sample of severely depressed patients randomly assigned to only six therapists who were providing both CBT and NST. Although these results should be interpreted with caution, it represents an important step in the youth alliance literature. This study aims to extend these results by examining similar therapist alliance-building behaviors in the context of a larger therapist competence measure and examining the alliance building behaviors across multiple treatments of youth with a range of internalizing disorders.

Facilitating Positive Expectancies

Client expectations about the potential benefit of psychotherapy is often considered to be one of the most common factors of psychotherapeutic change (Glass, Arnkoff, & Shapiro, 2001; Bandura, 1977; Delsignore & Schnyder, 2007; Dew & Bickman, 2005), while also being the most neglected (Greenberg, Constantino, & Bruce, 2006). All clients have expectations about therapy. These include expectations about what will happen over the course of treatment, and how beneficial therapy will be. While research suggests that expectancies can influence the client’s hope for recovery, motivation to return to treatment, and engagement in the treatment process (Meyer, Pilkonis, Krupnick, Egan, Simmens, & Sotsky, 2002), little emphasis is placed on client expectancies by the major schools of psychotherapy in research or training (Greenberg
et al., 2006). Expectancies are generally considered a pre-treatment variable, such that expectancies are only relevant at the beginning of treatment (Glass et al., 2002; Dew & Bickman, 2002). However, there is evidence that expectancies can be manipulated through therapeutic processes such as psychoeducation (Swift & Callahan, 2008). Therefore, therapist efforts to increase positive expectancies may be an important component of therapist competence.

Treatment outcome expectancies are global beliefs about how much benefit one expects to gain from therapy. Treatment expectancy is not a unidimensional construct (Delsignore & Schnyder, 2007; Dew & Bickman, 2005). This global expectation is made up of expectations about the individual components of the therapy process including: (a) rationale credibility, (b) therapist credibility, and (c) client (self) efficacy (Glass et al., 2002).

*Rationale credibility* expectancies describe the patient’s expectations about how effective the treatment approach will be (e.g. the client’s belief about whether systematic desensitization will reduce anxiety). *Therapist credibility* expectancies refer to the patient’s expectations about the effectiveness, or credibility, of the therapist. For example, a client may believe that a particular approach will be helpful, but have doubts about the ability of the specific therapist to help. Last, *self-efficacy* (in this context) refers to the client’s beliefs about being able to meet the challenges of therapy (Bandura, 1977). A client may believe in the approach and feel that the therapist is well-qualified but be plagued with self-doubts about being able to learn the new skills or face his/her fears (Bandura, 1977). Deficits in either of these areas can result in diminished treatment effects or premature drop-out (Hoffman & Suvak, 2006). Therefore, increasing expectancies about the efficacy of treatment, therapist, and self may help increase treatment engagement and boost gains. This suggests that therapist efforts to increase positive expectancies are an important component of therapist competence.
In this section, I will review the conceptual history of treatment expectancies as a common factor. Five of the six models or common-factors reviewed for this study (Table 1) include expectancies as a common process factor; the role of expectancies in each of these models will be discussed. I will then discuss the role of expectancies in each of the major theoretical schools. Empirical evidence for the relationship between positive expectancies and outcome will be presented. Finally, the section will conclude with a summary of therapist practices that facilitate the development of positive treatment expectancies that will guide the development of the therapist competence measure.

**Conceptual History of Positive Expectancies.** Frank (1961; 1971; Rosenthal & Frank, 1956) first introduced the role of client expectancies after witnessing the placebo effect in medical treatment. He initially suggested that psychotherapy could have similar placebo effects on patients simply by the suggestion that they would get better (Rosenthal & Frank 1956). Furthermore, he recommended outcome research make use of psychological placebo controls (e.g. attention controls) to determine if the effects of a particular therapy is due to the underlying technique versus mere suggestion. He later expanded his interest in underlying therapeutic processes into a model of common factors of psychotherapy and other forms of folk healing, with expectancies playing a prominent role (Frank, 1961). Indeed, in his model of the six common features of all psychotherapy, two are related to expectancies: therapist credibility and treatment rationale (1971). His theory of the role of expectancies has become quite influential and is the most commonly referenced in psychological placebo and expectancy research. Indeed, Frank is referenced in each of the common factor models presented in this paper (Table 1). According to Frank (1961), the therapist offers the client hope, which combats the state of demoralization in which they often present themselves at the beginning of treatment.
Psychological treatments help counteract despair and negative emotions that prevent the client from benefiting from new learning experiences. With reduction of despair, the client is therefore better able to learn from experiences provided by the therapist as well as the natural environment (Frank, 1961, 1971). Some have interpreted Frank’s theory that a significant amount of therapeutic improvement is the result of a placebo effect, meaning that clients get better because they believe they will get better, not because of any specific techniques the therapist might use (Kirsch, 1990). The use of the term “placebo” can be misleading as the term elicits an image of inactive ingredients, or something that is lacking inherent curative effects. Frank (1961) cautions that the placebo effect does not mean that positive expectations are the only factor responsible to change. He states that while positive expectations can lead to increased feelings of hope and comfort, lasting interpersonal effectiveness is most likely the result of other learning processes. Thus, the therapist should be aware of the real effects of a patient’s expectations and use that knowledge to maximize treatment gains.

Grencavage and Norcross (1990) included expectancies and related constructs as common factors based on their review of 50 studies focusing on common factors. Their review presented the frequency and percentage with which each factor was presented as a common factor in those studies. Expectancy related constructs fell into client characteristics (positive expectation/hope or faith, n=13, 26%), therapist qualities (cultivates hope/enhances expectations, n=10, 20%), change processes (provision of rationale, n=12, 24%; suggestion, n=9, 18%; placebo effect, n=6, 12%), and structure factors (explanation of therapy and participant roles, n=3, 6%). Frank’s conceptualization was provided as an explanation for the role of expectancies, with little elaboration. Grencavage and Norcross’s review reflects the many ways in which expectancies are thought to present and influence outcome as well as the need for more
Arnkoff and colleagues (2002) reviewed the literature on outcome expectancies for the APA Division 29 TF-ESR (Norcross, 2002). They conceptualize expectancies as a pre-treatment variable, such that client expectancies reflect an expectancy *trait* rather than an expectancy *state*. However, as will be demonstrated later in this section, expectancy states can be altered by experimental manipulations such as through the provision of plausible treatment rationales. They include in their conceptualization of outcome expectancy expectations of therapeutic gain, as well as expectations about the treatment procedures, therapist role, and length of treatment. Arnkoff and colleagues focus their review on outcome expectancies (i.e. expectancy about the efficacy of therapy) and role expectancies (expectations about the role of therapist and client). Outcome expectancies will be the focus of this review as negotiation of role expectancies can be considered part of the collaboration process in alliance building. Indeed, research has suggested that role and outcome expectancies influence outcome through separate pathways. Role expectancies appear to influence outcome indirectly through alliance, where as outcome expectancies exert a direct influence on outcome (Dew & Bickman, 2005).

Arnkoff and colleagues reviewed 26 studies examining the relationship between outcome expectancy and psychotherapy outcomes. Although results were variable, most studies found significant (n=12) or mixed (in which multiple measures were used and significant relationships were found on at least one measure; n=7) results. Unfortunately differences in outcome measure, source of report, and target outcome make comparing results difficult. Most studies have examined expectancies before treatment or after the first session, not accounting for changes in expectations as treatment progresses.

The literature on treatment expectancies has been slowly building over the last five
decades, with a small increase in the last two. As a result, research on the potential causal pathway of expectancies, or on moderators and mediators of expectancies is limited. In their review, Arnkoff identified several potential mediators of the expectancy-outcome relationship including, motivation to engage in treatment, increased hope and positive affect, instillation of confidence in the therapist and/or therapy, and generalized self-efficacy. According to Arnkoff, expectation should be considered a separate, though related, construct from motivation for treatment as it is possible to be highly motivated for treatment while having low expectations for success. For example, a client may be motivated to attend therapy for reasons other than symptom improvement, including malingering or to appease significant others. This may be especially true for children and adolescents who may deny or blame others for their distress. Their participation in treatment may be to avoid a nagging parent or receive a reward for attendance.

Each section of the Division 29 TF-PTC report concluded with recommended empirically-based therapeutic practices. Therapeutic practices associated with positive expectancies include promotion of realistic expectations about treatment, assessment and direct discussion of expectations (unless expectations are believed to be negative), conveying expertise, building treatment rationale and credibility, use of statements that convey that therapy can be effective, and that the therapist has been successful in the past treating the problem the client is experiencing (Arnkoff et al., 2002).

The role of client expectancies was reviewed by the APA Division 12 TF-PTC (Castonguay & Beutler, 2005a) specifically in the treatment of anxiety disorders (Newman, Crits-Christoph, Gibbons, & Erickson, 2005), depression (Beutler, Blatt, Alimohamed, Levy, & Angtuaco, 2005), and personality disorders (Fernandez-Alvarez, Clarkin, Salguerio, &
Critchfield, 2005). The conclusion of the TF-PTC was that treatment expectancies are a common factor for the treatment of anxiety and substance use disorders (Castonguay & Beutler, 2005b).

However, the number of studies conducted on expectancies with depressed participants was too few, and those that were available were not supportive, leading to the conclusion that expectancies may not be as relevant in the treatment of depression (Beutler et al., 2005). Again, client expectancies were considered pre-treatment client characteristics.

Additional lines of research have developed outside of the therapy process field that suggests the importance of expectancies. For example, research on related constructs such as optimism and self-efficacy, and recent advances in neurological research have examined the effects of expectancies and positive affect on cognitive and emotional processes.

Optimism is generally conceptualized as the global expectancy that good things will happen (Carver et al., 1979; Peterson, 2000; Scheier & Carver, 1985; Snyder, 1991). Increasing optimistic beliefs facilitate persistence in the face of failure and these continued efforts lead to an increased probability of success (Scheier and Carver, 1985). Such optimal experience would not be possible if plagued with self-doubts. Carver et al. (1979) found that following failure, negative outcome expectancies regarding a subsequent task lead to reduced persistence in that task; whereas positive outcome expectancies of the subsequent task lead to increased persistence. A person with high self-efficacy expectancies will be more likely to try new behaviors and will persist longer in these endeavors. This increased persistence will, in turn, increase the likelihood of success, which will increase self-efficacy expectations (Bandura, 1982; Sherer et al. 1982).

The manner in which a person determines if they have the abilities to continue these behaviors or attain a goal will determine how long they will persist when confronted with obstacles or adversity. Strong self-efficacy intensifies existing skills and sustains the effort
needed for optimal performance (Sherer et al., 1982). Research on optimism and self-efficacy offer support to the notion of positive outcome expectancies increasing persistence in difficult tasks such as those presented in therapy. Therefore, therapists may need to increase efforts, especially early in treatment, to encourage positive expectancies of treatment outcome and self-efficacy.

Another potential pathway through which positive expectancies operate is an increase in cognitive processing due to increases in positive affect. Positive affect has been demonstrated to improve cognitive processes such as attentional control, motivation, and problem-solving abilities on a psychophysiological level (Rowe, Hirsch, & Anderson, 2007; Subramaniam, Kounios, Parrish, Jung-Beeman, 2009). Using fMRI, Subramaniam and colleagues (2009) found that participants with positive mood were more likely to solve insight-problems due to increased activity in the dorsal anterior cingulated cortex (dACC) which allowed greater activation of semantic associations. The authors suggest that this may be due to increased priming of potential solutions. Although these studies are preliminary and based on analogue research, it may suggest that increasing positive affect, such as optimistic treatment expectancies, may facilitate insight and more effective problem-solving in therapy patients.

In sum, research has demonstrated that a person’s expectations influence their behavior in meaningful ways in a myriad of situations, including therapy. It has been well demonstrated that a person’s expectations of success lead to increased persistence in the face of difficulty. Frank believed that the meaningful effect of positive expectancies is the infusion of hope and faith (Frank, 1991, Kirsch, 1990), which serves as an inoculation against hopelessness and helplessness associated with many psychological disorders, particularly depression. Indeed, positive expectancies are thought to influence outcome through increased motivation and
participation in the tasks of therapy (Arnkoff, Glass, Shapiro, 2002; Delsignore & Schnyder, 2007; Greenberg, Constantion, & Bruce, 2006).

**Role of positive expectancies in major therapeutic approaches.** Although expectancies are generally agreed upon as a relevant client characteristic influencing treatment outcome (Grencavage & Norcross, 1990; Norcross, 2002), scant attention has been paid to expectancies in the theory or training of any major school of psychotherapy (Weinberger & Eig, 1999). As a result, little research is available on the theoretical role of expectancies. The following review will review what literature is available that specifically address expectancies, as well as extrapolations of implicit references to expectancies.

**Role of expectancies in psychoanalytic-based approaches.** Sigmund and Anna Freud discussed the importance of the client’s perception of the possibility of being helped by the therapist in early conceptualizations of transference processes (A. Freud, 1946; S. Freud, 1940). In reference to therapy with children, A. Freud described the mature therapeutic relationship between therapist and child in which the child recognizes that the therapist is a source of help in overcoming psychological problems (A. Freud, 1946). Implicit in her statement is the notion that the patient is able to engage in a therapeutic relationship once he/she believes that such a relationship will be helpful. Although she does not address client expectancies directly, she suggests that without a positive treatment expectancy engagement in the mature therapeutic relationship is unlikely. The role of expectancies has been explored more in relational theories of psychoanalysis than in drive theories.

**Drive theories.** Very little has been written on client expectancies in the psychoanalytic literature beyond that of A. and S. Freud. According to Rizzuto (2004), language is the most basic way of establishing emotional contact with others and is fundamentally hopeful. The very
act of verbalizing is an act of expectancy that the words will be recognized and respected. Therefore, the very engagement in the “talking cure” carries with it the patient’s implicit hope of improvement. Hope is linked to early experiences in which an infant develops expectations that basic needs will be met by the caregiver. Maternal verbalizations serve as the first indication that satisfaction of needs is imminent. The process of analysis mimics the undivided attention of the mother in trying to determine the unmet needs of the baby. The client’s hope of alleviation of symptoms is what drives continued engagement in therapy. Unconscious hope will form the focus of the analysis (e.g. unmet hopes, pathological hopes) by bringing them to light. The very act of attending sessions and paying for treatment constitutes the client’s expectations that the therapist will provide satisfaction, love, hope, or whatever is needed.

_Relational theories._ According to object-relationship theory, clients expectations about relationships with others are based on the internalized objects formed from their relationships with early caregivers (Greenberg & Mitchell, 1983). Individuals with histories of unstable, unsatisfactory, and/or abusive relationships are more likely to develop low quality object relations. These individuals often present with difficulties with affect regulation, low self-esteem, and seek nurturance from the therapist. On the other hand, individuals with high object relations typically have a history of more satisfactory interpersonal relationships. They typically present with difficulties in interpersonal relationships that arise out of need to control or compete with others (Joyce, McCallum, Piper, & Ogrodniczuk, 2000). They typically expect to be able to contribute more in treatment and may be driven to impress the therapist. In treatment, the client’s ability to form appropriate expectations of the roles of client and therapist is based on the quality of object relations. Joyce and colleagues (2000) examined role-expectancies of clients in a short-term object-relationship therapy. They found that the quality of the client’s object relations...
mediated the relationship between client role expectations and alliance. For clients with high quality object relations, the change in alliance over treatment was associated with expectations of being able to contribute to the therapeutic process. For clients with low quality object relations, the change in alliance was associated with patient-therapist congruent expectations of the support that would be provided by the therapist. This suggests that, in addition to supplying additional support in the early stages in treatment, therapists may need to work with patients with low quality object relations to develop appropriate expectations about the roles of therapist and client in the therapeutic process.

Joyce and Piper (1998) also found significant relationships between treatment expectancy and alliance and between expectancy and outcome. The expectancy-alliance relationship was stronger than the expectancy-outcome relationship. The authors suggest that treatment expectancies may have a stronger direct effect on alliance than outcome. However, like most studies of expectancy, the lack of repeated expectancy measures limits the ability to examine the effect of changing expectations and the direction of the relationship with other process variables such as alliance.

**Role of positive expectancies in person-centered therapeutic approaches.** The person-centered approach is consistent with Frank’s (Rosenthal & Frank, 1956; Frank 1961, 1971) conceptualization of expectancies in which hope for recovery reduces the anxiety and distress associated with his/her situation and allows the client to act in a more mature manner. Central to person-centered theories is the belief that the client has innate self-healing capabilities and the role of the therapist is to provide support and tools the client needs to make the necessary changes (Bohart & Tallman, 1999). Accordingly, the client is the change mechanism and the client’s involvement is critical to therapy’s success. However, little is written in the person-
centered literature about expectancies beyond Frank’s formulation.

**Role of expectancies in cognitive and behavioral approaches.** While early and radical behavior theories relegate processes such as motivations and expectations to the “black box” (i.e., processes that are not directly observable and thus not suitable for scientific investigation), the effects of expectancies on pathogenesis and treatment have been considered by many contemporary behavioral and cognitive theorists: most notably, Seligman’s theory of learned helplessness (Seligman, 1975), Beck’s theory of the cognitive triad of depression (Beck, 1979), and Bandura’s social learning theory (Bandura, 1977). Of these Bandura’s social learning theory focuses primarily on expectancies.

Learned helplessness (Seligman, 1975) was an early behavioral theory that postulated that humans who have experienced uncontrollable negative events learn that coping efforts are futile and adopt expectations of (a) the occurrence on continued negative experiences, and (b) the futility of coping. The individuals have learned to be helpless and experience little hope for the future (Seligman, 1975). Furthermore, global negative expectancies about self, experiences, and future are part of the cognitive triad that is central to Beck’s cognitive theory of depression (Beck, 1979). A challenge to therapists of depressed, particularly early-onset dysthymic, clients is the establishment of hope about recovery and engagement in treatment. Research examining initial treatment expectancies and outcome has failed to find a significant effect (Beutler, Blatt, Alimohamed, Levy, & Angtuaco, 2005), however this may be due to the characteristic hopelessness and helplessness of depressed clients (Dew & Bickman, 2005). Research has not been conducted on the change of expectations over the course of treatment to determine if increases in positive expectations are related to outcome. It is likely that, like alliance (Ilardi & Craighead, 1999; Tang & DeRubeis, 1999a), early changes in expectations may predict more
favorable outcomes compared to initial treatment expectancies.

Bandura’s Social Learning Theory (1977) combined behavioral principles with cognitive processes, such as memory and cognitive representations, to explain the acquisition of behavior repertoires, such as coping behavior. Individuals learn from the consequences of their own experiences and from observing others, which are then encoded in memory as cognitive representations. Based on these cognitive representations, individuals will select behaviors based on expected outcome (e.g. obtaining reinforcement or avoiding punishment). According to this theory, individuals will only select behaviors that they believe will result in a desired outcome (Bandura, 1977, 1882). Bandura posited that efficacy evaluations (particularly self-efficacy) is the unifying factor of all psychotherapies. Clients must believe that they are capable of performing the behaviors of therapy (e.g. sharing thoughts, feelings, and wishes with therapist, gaining insight, or confronting fears), and believe that the behaviors will result in recovery. Expectancies are not only important for the initiation of therapy, but must be supported throughout treatment, particularly as treatment advances from one stage to another (e.g. from cognitive restructuring to exposures). Bandura (1977) suggests that those who prematurely cease their coping will maintain their expectancies of failure and fear. He also emphasizes that expectancies are not the sole determinant of behavior change: acquisition of new skills and motivation to use those skills are also needed. Expectancies can be influenced through performance accomplishments, vicarious experiences (e.g. therapist modeling), verbal persuasion (suggestion, interpretive treatments), and emotional arousal (relaxation, imaginal exposure). Self-efficacy in individual psychotherapy has been largely ignored by the research community. Unfortunately, little research is available that directly measures self-efficacy expectations and treatment outcome outside of addiction and health-behavior research.
**Empirical evidence for positive expectancies.** Research examining the change mechanisms associated with positive treatment expectancies, as with other therapeutic factors, has lagged. There have been meta-analytic studies that have examined client expectancies about treatment in relation to outcome with mixed results (see Arnkoff et al., 2002; Castonguay & Beutler, 2005a; Dew & Bickman, 2005 for reviews). Several methodological issues make interpretation of these mixed results difficult including: definition of expectancy variable of interest (e.g. role vs. outcome expectancies), differences on the dependent variable of interest (e.g. treatment outcome vs. attrition), and failure to consider expectancy as a process variable rather than a pre-treatment variable.

The failure to examine role expectancies and outcome expectancies differently may be one reason for the inconsistencies in the relationship between expectancies and outcome (Delsignore & Schnyder, 2007; Dew & Bickman, 2005). Role and outcome expectancies may influence outcome through different pathways: (a) treatment outcome expectancies has a direct (but partial) influence on outcome, and (b) role expectancies has an indirect influence on outcome through alliance (Dew & Bickman, 2005). When outcome expectancies are examined separately, the relationship with outcome is more evident (Delsignore & Schnyder, 2007). Only recently have studies examined the relationship between expectancies and alliance (Greenberg et al., 2006). Studies have shown a strong relationship between pre-treatment outcome expectancies and therapeutic alliance in CBT, supportive-expressive therapy, and interpersonal therapy (Connolly Gibons et al., 2003; Constantino, Collins, Castonguay, Newman & Borkovec, 2004).

Meyer and colleagues (2002) from the NIMH Treatment of Depression Collaborative Research Program found that clients with positive outcome expectancies engaged more in therapy leading to symptom reduction. Treatment outcome expectancies also influenced the client’s contribution
to the alliance. Clients with positive outcome expectancies were more likely to engage in the process of therapy as well as the therapeutic relationship with the therapist, and this more likely to benefit from therapy.

Hardy, Barkham, Shapiro, Reynolds, & Rees (1995) found that outcome expectations are influenced, at least partially, from the credibility of the treatment rationale. Constantino et al (2004) found that credibility and outcome expectancy are highly correlated, and thus difficult to separate the two constructs. Hofman & Suvak (2006) in a study comparing exposure-based group behavioral therapy (EGT) and CBT group therapy for social phobia found that the only difference between treatment completers and dropouts was credibility of treatment rationale at the beginning of treatment. Those who prematurely terminate treatment rated the treatment rationale as less credible than treatment completers, suggesting they had lower expectations of success. No differences were observed for other clinically relevant variables such as symptom severity or Axis I or Axis II comorbidity. Safren, Heimberg, and Juster (1997) found that client pre-treatment expectancies did not differ for completers and dropouts. Clients with higher severity and generalized sub-type of social phobia had significantly lower expectancies for CBT-group therapy. However, after controlling for symptom severity, expectancies significantly predicted outcome.

As mentioned previously throughout this review, one major limitation of the majority of expectancy-outcome research is its operationalization as a pre-treatment client characteristic. However, several studies have been conducted to demonstrate that treatment expectancies can indeed be changed through therapeutic processes. Tinsley, Bowman and Ray (1988) reviewed 46 studies between 1962 to 1983 that attempted to manipulate expectancies about outcome, roles, rationale, and therapist credibility. Six different methods of manipulation were used including
audio \((n=8)\) and videotaped \((n=8)\) presentations, simple verbal instructions \((n=14)\), printed materials \((n=11)\), counseling interviews \((n=10)\), and one complex intervention. Results of their review indicated that audio and video presentations and counseling interviews were most effective in changing client’s expectations about treatment processes (including role expectations and procedure credibility) and outcomes. Simple verbal instructions were typically not effective in inducing expectation changes suggesting that therapists may need to engage clients in a discussion about expectations rather than making a few statements about the effectiveness of the treatment.

Horvath (1990) conducted an analogue study with undergraduate students in which expectancies were manipulated by information presented in written treatment rationales. The length of rationale and amount of information presented appeared to influence the credibility of the rationale. Rationales that were moderate in length and detail were most effective in raising outcome expectations. There appears to be a balance in the amount of information presented, such that enough information needs to be presented to justify the rationale, while maintaining ease of understanding (Horvath, 1990). This may be especially relevant for work with child and adolescent clients.

Swift & Callahan (2008) found that college students tend to have unrealistic expectations for treatment duration, such that they believe treatment to take significantly fewer sessions than expected recovery-rates suggested in the literature. They also found that expectations for the length of treatment could be significantly increased in an analogue study with college students through brief psychoeducation. In this study, the manipulation group were told that “research findings indicate that on average it takes approximately 15 therapy sessions for 50% of clients to recover” (p. 585). The non-manipulation group expected treatment to take approximately 9 fewer
sessions on average. Although an analogue study, these finding suggest that more realistic expectations of treatment duration can be influenced through the provision of information to the clients prior to treatment.

**Therapeutic practices that increase positive expectancies.** It can be assumed that clients have some degree of expectation before they walk in the therapist’s office (Dew & Bickman, 2005). However, when working with children and adolescents, one cannot assume that these are necessarily positive expectations since most youth do not refer themselves to treatment (Shirk & Saiz, 1992; Weisz, 2004). As a result, an early task in treatment is to increase both outcome and role expectancies (Arnkoff et al., 2002). However, Kirsch (1990) warns against promising too rapid or too large improvements as clients can become demoralized if these expectations are not met (Swift & Callahan, 2008). Increasing outcome expectancies can involve attempts to increase treatment efficacy though treatment rationale, increasing therapist efficacy through therapist credibility, and increasing client efficacy by ensuring successful experiences in therapy.

Greenberg et al., 2006 suggestions for therapist strategies include: use of hope inspiring statements; provide a non-technical review of evidence base for treatment; provide realistic expectations for course of therapy (e.g. gradual change over time versus immediate results); review of specific interventions that will be employed; discuss the importance of collaborative engagement; and statements to increase sense of self-efficacy.

Rationale credibility refers to the extent to which the rationale for the causes of the problem and the rationale for the treatment program are believable. Frank (1971) refers to this as the myth of therapy, which must be compatible with the client’s cultural beliefs. He offers this as an explanation of why alternative medicines and faith healings, for which there are no
scientifically supported mechanisms, are popular in non-Westernized cultures. The credibility of the rationale for treatment can be impacted by the amount of information that is presented and how easily it is understood (Horvath, 1990). Beck recommends the use of printed materials or video tapes that describe the rationale and methods of treatment to with the goals of engaging the client in a conversation to encourage realistic (e.g. moderate) expectations of treatment success as part of socialization to therapy process. Thus, child and adolescent therapists must present the rationale for treatment in a manner that is developmentally appropriate and provides sufficient justification of the methods used.

Therapist credibility can impact the client’s confidence in the therapist’s ability to help solve the problems at hand (Frank, 1971). Therapists can increase credibility by expressing experience with the target problem and displaying enthusiasm for treatment (Arnkoff et al., 2002).

Unfortunately, it appears that research on expectancies as change mechanisms are plagued with the same limitations as research on alliance- the lack of simultaneous repeated measures throughout the treatment process (Greenberg et al., 2006). Furthermore, very little research has been conducted on the role of expectancies in child and adolescent therapy, and the research that has been conducted has been on parents’ expectations (Nock & Kazdin, 2001). Given that the parent is often responsible to initiating treatment and providing transportation and financial support, continued attendance is at least partially dependent on the parent’s expectations of beneficial outcome (Nock & Kazdin, 2001). However, research is needed to examine the role of the child client’s expectations, particularly in child-focused individual treatment (compared to parent-training treatments).
Instigating Change

The third factor, instigating change, encompasses the activities of the therapist that are directed at initiating change processes; what Orlinsky and Howard (1987) referred to as “the official ‘business’ of seeking and giving help” (p.8). As will be discussed below, it has been argued (Orlinsky & Howard, 1987) that the goal of most theoretical orientations is to facilitate the client's self-exploration and learning about the psychological process associated with the therapist's conceptualization of the problem (e.g., defenses, repression, cognitive errors, skill deficits, conditioned behaviors, avoidance, and/or role or systems conflicts) and the development of skills to alleviate those problems (e.g. interpersonal skills, increased self-awareness, emotion regulation, problem-solving skills, approach behaviors).

Additionally, while individual techniques may be considered treatment-specific factors, the act of instigating some form of psychological and/or interpersonal change may be considered a common factor. Indeed, some have asserted that it does not matter what specific technique therapists use, because all techniques are relatively equivalent in instigating change (Bohart & Tallman, 1999; Luborsky, Singer, & Luborsky, 1975). The goal of this section, and the proposed studies, is not to answer this debate or align with one side of the argument or the other. Instead, my aim is to acknowledge that there are common processes among techniques that are often considered quite different. For example, identification of cognitive errors and interpretation of unconscious motivations are both specific techniques to provide the client with new information about automatic, unconscious intrapersonal processes. Thus, I distinguish the common factor from specific techniques as follows: instigating learning about intrapersonal processes (broadly) is a common factor; interpretation or cognitive restructuring are specific techniques. It is possible that once commonalities are identified and accounted for, the differences between techniques can
be fully appreciated.

It is not the goal to review every therapeutic technique in this paper. Indeed, entire textbooks on clinical psychology are written comparing and contrasting psychological theory and treatments. The goal of the proposed study is to identify the generic goals of common therapeutic strategies that instigate change processes. This section will provide a brief review of the strategies that therapists of various orientations use to instigate change in their client. First, a brief conceptual history of instigating change as a common factor will be reviewed. After this review, the role of instigating change in psychoanalytic, person-centered, and CBT treatments will be presented. Next, I will provide a brief review of empirical studies that have examined the relationship between strategies of instigating change and outcome. Finally, I will provide a summary of therapist behaviors that instigate change for the development of the common factor competence measure.

**Conceptual history of instigating change as a common factor.** In his theory of common therapeutic factors, Frank (1971) included three factors related to instigating change. These included: provision of new information about causes and cures through self-discovery or didactic training (or group members in group therapy); provision of successful experiences to increase hope and mastery; facilitation of emotional arousal necessary for change to take place. Frank believed that, although techniques differ, all psychological treatments help patients reorganize information in a more adaptive framework so that changes in behavior can occur. The therapist helps the client challenge his/her “assumptive world” through overt (e.g. hypothesis testing techniques) or subtle (e.g. not reacting to client’s provocation) means (Frank, 1968). Although therapies differ in how much structure is applied, many encourage experimentation with new ways of behaving, and reinforce those behaviors in more or less subtle
ways. Clients experience success though accomplishing behavioral tasks and/or gaining new insights. In Frank’s (1971) view, the client must believe that the success is due to his/her own efforts rather than the experience of the therapist. All therapies help the client alter his/her self-image as someone who is capable of coping. According to Frank (1968) all therapies have some methods for arousing emotions: exposure to feared situations, reliving traumatic experiences, breaking expected interpersonal interaction patterns, or evoking transference feelings.

Orlinsky and Howard (1987) consider “therapeutic interventions” one of the common elements of the therapeutic process. While interventions vary by conceptualization, Orlinsky and Howard categorize them in terms of application (interpersonal or intrapersonal), target-function (cognitive, affective, or behavioral), and the influence process (clarification, evocation, modeling, or reinforcement). Each of the therapy schools emphasizes certain applications, target-functions, and influences processes while deemphasizing others. Therapeutic realizations are another component of Orlinsky and Howard’s Generic Model of Psychotherapy (1987). Realizations are the impact of therapeutic interventions and are mediated by the client’s participation and openness (e.g. self-relatedness). According to Orlinsky and Howard, not only are realizations a result of the therapeutic process, but they are also part of the process leading to behavioral, emotional, and cognitive changes (1987). Thus, the therapist uses interventions address cognitive, behavioral, or affective functions through influence processes to instigate realizations about interpersonal or intrapersonal aspects of the client’s life.

In Grencavage & Norcross’s (1990) review of the common-factor literature produced multiple factors associated with instigating change which fell into the “change process” and “treatment structure” superordinate categories they defined (the other categories included client characteristics, therapist qualities, and relational elements). The change process category was
defined as the middle ground between global theories and specific techniques and was broadly defined as the means through which change occurs. The most frequent change processes (frequency and percentage of endorsement provided in parentheses) identified by researchers were the opportunity for catharsis ($n=19, 38\%$), acquisition and practice of new behaviors ($n=16, 32\%$), fostering insight/awareness ($n=11, 22\%$), emotional and interpersonal learning ($n=10, 20\%$), feedback/reality testing ($n=9, 18\%$), suggestions ($n=9, 18\%$), success and mastery experiences ($n=9, 18\%$), persuasion ($n=6, 12\%$), contingency management ($n=5, 10\%$), therapist modeling ($n=4, 8\%$), desensitization ($n=4, 8\%$), and education/information provision ($n=4, 8\%$).

Treatment structure factors related to instigating change include the use of techniques/rituals ($n=7, 14\%$), and focus on “inner world”/exploration of emotional issues ($n=5, 10\%$). Grencavage and Norcross’s model of common-factor is more “data”-driven than other the other models presented in this review in that the factors were selected based on frequency of endorsement in the literature as opposed to being theory driven. As a result, there is little elaboration of each mechanism and the role they play in the therapeutic process. However, they provide several face-valid strategies for therapeutic practices that instigate change.

Division 29 TF-ESR (Norcross, 2002) identified several elements related to instigating change including: feedback (Claiborn, Goodyear, & Horner, 2002), self-disclosure (Hill & Knox, 2002), and relational interpretations (Crits-Christoph & Connolly Gibbons, 2002), all of which were considered promising elements of the therapeutic relationship based on the task force’s criteria. Feedback, in this context, is the process by which the therapist provides information about the client’s behavior and/or the impact of the client’s behavior in order to produce therapeutic change (Claiborn et al., 2002). There are four main types of feedback in the therapy process: 1) observation and/or description of client’s behavior, 2) emotional reaction to client’s
behavior, 3) inference about that which is not directly observable, such as a trait or internal experience, and 4) mirroring (providing the client with a sample of his/her own behavior to observe; Claiborn et al., 2002). Goldsamt, Goldfried, Hayes, & Kerr (1992) found that the nature and focus of feedback may vary in predictable ways according to therapeutic approach. For example inferential feedback is similar to interpretation often associated with psychodynamic traditions in that it provides new information, but also a new perspective of the self and the world that the client may not have previously been aware.

Hill and Knox (2002) reviewed the literature on the use of self-disclosure for the TF-ERS (Norcross, 2002). There is not a consensus on the definition, purpose, or appropriateness of therapist self-disclosure. Hill and O’Brien (1999) divided self-disclosure into four categories: disclosure of facts, disclosure of feelings, disclosure of insights, and disclosure of strategies, with each category serving a different purpose and likely leading to a different outcome. Hill, Mahalik, and Thompson (1989) argued for distinction between reassuring self-disclosures (e.g. those intended to demonstrate validation and support) and challenging self-disclosures (e.g. those intended to provide a new perspective or challenge the client’s way of thinking, feeling, or behaving). Using this taxonomy, the reassuring self-disclosures may function as an alliance building strategy, whereas challenging self-disclosures may function as an instigation of change strategy.

Crits-Christoph and Gibbons (2002) reviewed the literature on relational interpretations for the TF-ERS. While the precise definition and hypothesized underlying mechanisms vary according to theoretical school, interpretations can be broadly defined as an explanation that adds to the client's knowledge of his/her thoughts, feelings, and behaviors in interpersonal relationships (Lowenstein, 1951). Using this broad definition, it has been demonstrated that
interpretations are used in most forms of psychological treatments (Crits-Christoph & Gibbons, 2002). Indeed, Connolly and colleagues (2000) found that the frequency of interpretations were comparable in interpersonal and cognitive therapy sessions. The use of the transference interpretations (e.g. interpretations specifically about the therapist-client relationship) on the other hand, are more represented in psychodynamically based treatments compared to supportive-expressive or cognitive/CBT treatments (Crits-Christoph & Gibbons, 2002).

Of these various conceptualizations of the change process, I posit that Orlinsky and Howard (1987) provide the clearest model of how the change process develops. Therefore, the conceptualization of instigating change I will propose in this study will be largely based on their theory. Specifically, that therapists use various techniques (e.g. clarification, evocation, and/or reinforcement) to target cognitive, affective, or behavioral components of interpersonal and/or intrapersonal processes. This process leads to therapeutic realizations which in turn lead to therapeutic change in behaviors, cognitions, and/or emotions.

**Role of instigating change in major therapeutic approaches.** The goal of psychological treatment is to elicit specific changes in clients to improve their quality of life and/or the quality of life of those around them (e.g. parents, spouses, children, co-workers, etc). Each theoretical orientation conceptualizes the cause of the problem, the specific targets that need to be changed, and the mechanisms through which those changes occur differently. Whether they are learning the influence of unconscious drives on their current behavior, that they are capable of examining and solving their own problems, to change maladaptive thought patterns, or simply new patterns of behaving depends on the specific approach of the therapist. Research on mechanisms of change is only beginning to demonstrate that some shared underlying processes occur among seemingly divergent therapies (Kazdin, 2007). For example,
research has demonstrated that changes in cognitions can occur in behavior therapy without explicit cognitive-restructuring procedures (Newman, Hofmann, Trabert, & Roth, 1994). Others have suggested that changes in “deep cognitive activation” (e.g. cognitions which have an observable effect on behavior but are not consciously reportable) underlie psychoanalytic and behavioral treatment approaches (Wegner & Smart, 1997). The following section will review how each major theoretical view change and attempt to instigate change in therapy.

**Role of instigating change in psychoanalytic-based approaches.** Clinical psychoanalytic work invariably involves the patients’ relationships with other people. Even Freud’s drive theory involves the person at which the drive is directed. From his first case (Anna O), it became apparent to Freud that there is often no one-to-one correspondence between the person the patient describes and the actual person (Greenberg & Mitchell, 1983). The object is a modified version of the actual person. People often react to the modified object (the internal representation) rather than the actual person. Mental representations of others have the capacity to trigger behavioral responses. Depending on the specific tradition, mental representation may be referred to by different names, including internal objects, illusory objects, introjects, personifications, or representational world (Greenberg & Mitchell, 1983).

**Drive theories.** Drive theorists pay particular attention to transference interpretations. As Carl Jung once said, "transference is the Alpha and the Omega of psychoanalysis" as a way of bringing into awareness and resolving psychological conflicts (p. 342, Butler, Flasher & Strupp, 1993). The purpose of interpretation is supplying some missing component in the patient’s representation of self. Exactly what is missing and why differs among the schools (Greenberg & Mitchell, 1983). Whatever dimension one school views as central to human development provides that context through which that school makes interpretations of the patient’s experience.
The particular school to which the analyst subscribes will direct the underlying framework on which the analyst builds his/her conceptualizations and interventions. This framework influences how the analyst puts together what the patient is saying, what dimensions are missing, and how to intervene (Greenberg & Mitchell, 1983). Nonetheless, interpretation plays a central role in helping the client learn more about pertinent ego functions, dynamic issues, and developmental antecedents (Messer, 2001). From Orlinsky and Howard’s (1987) model, drive theorists use transference interpretations (a form of evocation and clarification) to target the client’s thoughts, feelings, and actions toward the therapist that are based on internal drives (an intrapersonal process) and connects these to interpersonal processes with others.

**Relational theories.** Psychodynamic treatments such as interpersonal therapy (IPT; Klerman et al. 1984), supportive-expressive therapy (SE; Luborsky, 1984), or Time-Limited Dynamic Therapy (TLDP; Strupp & Binder, 1984) have several different methods of instigating change (Butler, & Strupp, 1993). IPT facilitates learning about depression and interpersonal processes by focusing on relationships outside of the therapeutic relationship (although development of the therapeutic alliance is viewed as key to the therapeutic process). SE therapy uses psychoanalytic interpretive techniques to facilitate the patient's learning of his/her symptoms, anxieties, and/or conflicts in the context of the client-therapist relationship. Through this process, the client eventually learns to be able to recognize and manage his or her conflicting emotions and actions (Butler & Strupp, 1993). TLDP, like SE therapy, uses the therapeutic relationship as a central focus of psychoanalytic interpretations to facilitate the client's learning about interpersonal patterns that are likely replicated in the client's external relationships, which contribute to symptoms of anxiety and/or depression. TLDP techniques include making interpretive links between the therapeutic relationship and other current and past relationships,
understanding interpersonal meaning, and identifying and dealing with resistances to aid the client in developing awareness of self-defeating patterns (Butler, & Strupp, 1993). For example, SE and TLDP utilize the Cyclic Maladaptive Pattern procedure to increase awareness of Acts of Self, Expectations of Others' Reactions, Acts of Others Toward Self, and Acts of Self Toward Self to demonstrate the effect of interpersonal patterns (Butler & Strupp, 1993). The change processes of relational therapies is similar to that of drive theories except that relational theories focus more on interpersonal processes of the past (e.g. early object-relations processes) and current interpersonal processes with others outside the therapeutic relationship.

Role of instigating change in person-centered therapeutic approaches. Person-centered approaches tend to use reflection and summary statements as a way to help clients explore their thoughts and emotions in a process that naturally leads to change (Miller & Rollnick, 2002). This expressive process helps clients to engage and reflect upon their experiences and engage in active problem-solving (Bohart & Tallman, 1999). According to client centered theory several processes are involved when therapists empathetically listen and allow clients to express themselves in therapy without intervention (Rogers, 1957). These processes include: acknowledgment and acceptance of one's own experience, alleviation of shame and secrecy, memory enhancement, emotional reprocessing, solution generation, increased perspective taking, reworking of narratives, increased creativity and problem-solving (Bohart & Tallman, 1999).

Therapists can further facilitate therapeutic change through empathetic reflecting and conversational responsiveness. While empathetic reflections can help build the therapeutic bond, they can also be used as a method of providing new information, such as providing a new perspective or encouraging the client to explore further (Miller & Rollnick, 2002). Competent reflection statements, not only repeat what the client has said, but helps to connect cognitive and
affective meanings, of which the client may not be aware.

Self-disclosure is also a significant part of person-centered therapies. Person-centered therapists use self-disclosure as a means to demonstrate genuineness and positive regard in order to develop openness, trust, self-understanding, and change (Goldstein, 1997; Rodgers, 1951). Person centered therapists also provide learning opportunities, many of which are similar to those used in other therapeutic approaches, and include: interpersonal exploration and learning, co-constructive dialogue, structured exercises for exploration, and the teaching of specific learning experiences and skills (Bohart & Tallman, 1999). The provision of specific learning experiences and teaching of specific skills are used only when clients lack the basic skills they need or need help addressing specific problems such as specific fears. Based on the model proposed in this study, person-centered therapies tend to use more evocation and clarification procedures to activate the innate self-healing capabilities (e.g. an intrapersonal process) to lead to therapeutic realizations and change.

**Role of instigating change in CBT approaches.** The central goal of cognitive therapy is to teach clients to identify, test, and correct distorted and dysfunctional cognitions and schemas (Beck et al., 1979). The cognitive therapist aims to facilitate the client's learning about the nature of his/her cognitions and learned to appropriately challenge dysfunctional beliefs, attitudes, cognitions, and schemas. The techniques used include: monitoring of dysfunctional automatic thoughts, recognition of the relationship between thoughts, emotions, and behaviors, examination of evidence supporting or contradicting the automatic thought, substitution of more reality-based perceptions, and finally to learn to identify and modify dysfunctional core beliefs (Beck et al., 1979). Competent cognitive therapists also make use of "collaborative empiricism" and Socratic questioning to help the client become actively engaged in the therapeutic process and in
exploration of thoughts, feelings, wishes, daydreams, and attitudes (Beck et al., 1979). This includes the use of hypothesis testing in which the client's cognitions or experiences form hypotheses which can be tested (Beck et al., 1979).

According to learning theories (Skinner, 1953, 1974) that influenced behavior therapy, individuals learn based on the consequences of their actions (i.e. operant conditioning): reinforcement increases or maintains a behavior, while punishment decreases the behaviors. Furthermore, according to Contemporary Learning Theory (Bouton, 2007), respondent (Pavlovian) and operant (Skinnerian) processes are intertwined (Bouton, 2007; Pierce & Cheney, 2004). According to this theory, conditioned responses and maladaptive behavior patterns are being maintained by some reinforcer, and/or inadequate punishment mechanisms. The goal of behavior therapy is to understand and teach the client what processes are maintaining maladaptive behaviors and what processes need to be implemented to increase adaptive behaviors. Behavior therapists may use behavior analysis to understand the antecedents, behaviors, and consequences involved in the target problem and then teach the client extinction and/or habituation strategies to address maladaptive operant and/or respondent processes, respectively. The teaching of new skills may also be necessary to address skill or practice deficits. These may include contingency management or desensitization techniques. In sum, CBT and behavior therapists primarily use didactic, evocative, and reinforcement strategies to target cognitive, affective, (e.g. intrapersonal) and behavioral (i.e. interpersonal) components of the client’s functioning to initiate change in cognitions, emotions, and behaviors.

**Empirical evidence for instigating change.** While many research studies have explored the effectiveness of various psychological treatments and the comparison of one approach to another, very few studies have measured and directly tested the effectiveness of specific
techniques or strategies. This points to the overall deficit of process research in general. Furthermore, the field is flooded with terminology that may or may not refer to similar processes. Each theoretical school has its own set of vocabulary to describe psychological processes and treatment processes. Divisions within the major schools further complicates the synthesis of theories as each attempts to modify or reinvent the theory and develops a new set of vocabulary (e.g. internal objects versus introjects, or metacognitive therapy versus cognitive therapy). Research that has developed out of each lineage not only adopts its own language, but its own set of process and outcome measures based on their respective lexicon. As a result, few studies are able to compare the effect of one theory’s techniques on another theory’s mechanisms or outcome to determine the extent to which strategies are indeed common. Indeed, delineation of which specific techniques may or may not be more effective than another is not the goal of this study. Rather, I make the assumption that the therapists attempt to facilitate the client’s learning about intrapersonal or interpersonal processes, coping skills, or social/living skills are considered a common factor. Research on feedback (including broadly defined interpretations) and self-disclosure have demonstrated the presence of these strategies in multiple approaches as means of instigating change and will form the focus of this section.

Although feedback is used widely, little outcome research has examined the direct effects of feedback. This may be because feedback is often called by many other names (e.g. praise, reinforcement, confrontation, interpretation, immediacy, etc.), and because different forms of feedback serves different functions in the therapy process (Claiborn, et al., 2002). Much research has been conducted on the various approaches that use various forms of feedback as discussed above. Unfortunately, little dismantling research has been conducted to determine the effectiveness of mechanisms of specific techniques embedded within these overall treatment
Research specific to CBT methods of instigating change through providing feedback about cognitive processes (e.g. cognitive restructuring techniques to address schemas, automatic thoughts, and dysfunctional beliefs) have demonstrated that changes in cognitions mediates change in outcome (Garratt, Ingram, Rand, & Sawalani, 2007; Tang & DeRubeis, 1999; DeRubeis, Evans, Hollon, Garvey, Grove, & Tuason, 1990). Furthermore, evidence suggests that behavioral techniques, such as exposure, can lead to direct or indirect changes in cognitive schemas (e.g. by disconfirming feared consequences or increasing sense of mastery; Garratt et al., 2007).

Interpretations, when defined broadly as an explanation that adds to the client's knowledge of his/her thoughts, feelings, and behaviors in interpersonal relationships (Lowenstein, 1951) have been demonstrated to be present in many treatment approaches (Connolly et al., 2000). Although interpretations exist in cognitive therapies (e.g. interpretations about the relationship between maladaptive thoughts and behaviors), much of the research on interpretations have focused on brief dynamic therapies (Crits-Christoph & Connolly Gibbons, 2002). This research has demonstrated that high-frequency of transference interpretations can lead to poor outcomes, and that the greatest benefit is gained when low to moderate levels of transference interpretations are made. Current evidence suggests that the quality of interpretation is more important than frequency. Although only three studies have been conducted investigating the quality of interpretations and treatment outcome, their findings have consistently shown that accurate interpretations that address central themes in the client's pathology leads to favorable outcomes (Crits-Christoph, Cooper, & Luborsky, 1988; Piper, Azim, Joyce, McCallum, & Nixon, 1993; Silberschatz, Fretter, & Curtis, 1986). Therefore, when judging therapist
competence the rater should consider the accuracy of interpretations made and their relevance to the central themes of therapy rather than frequency or "dosage" of interpretations (Crits-Christoph & Gibbons, 2002).

The majority of research on the effects of self-disclosure have been analog studies using research participants, such as undergraduate students, rate written transcripts, audio tapes or video tapes (Watkins, 1990). These analogue studies generally suggest that self-disclosure is viewed favorably and elicits more client self-disclosure. Studies that have examined actual client perceptions of therapist self-disclosure have found that clients rate therapists who self disclose as being more helpful and subsequently experiencing higher levels of involvement with their feelings compared to therapists who do not disclose (Hill, Helms, Tichenor, Spiegel, O'Grady, & Perry, 1988). The relationship between therapist self-disclosure in treatment outcomes are less clear with studies reporting mixed results, potentially resulting from inconsistencies in definitions of self-disclosure and assessment methods (Hill & Knox, 2002). It appears that there is a balance in the amount of self-disclosure the therapist should use. For example, experimental studies that manipulated the levels of therapist's self-disclosure considered five self disclosures per session as the high-disclosure condition (Barrett & Berman, 2001).

In sum, there are many therapeutic practices that are used to instigate change in clients through addressing intrapersonal and interpersonal functioning. Unfortunately, little direct research has been conducted to demonstrate which individual practices influence outcome. Furthermore, the lack of a shared vocabulary makes empirical comparisons difficult. The following section will review available literature on specific therapeutic practices that have been linked to initiating change in interpersonal and intrapersonal domains.

**Therapeutic practices that instigate change.** The TF-ESR recommends the use of
infrequent self-disclosure for the purpose of validation, normalization, modeling, or to offer alternative ways of thinking, feeling, and/or behaving. Self-disclosure may also be helpful in response to relevant client self-disclosure as a means of normalizing and reassuring the client. However, therapist self-disclosures that are self-serving, detract from the flow of the session, remove the focus from the client, are confusing, intrusive, or blur the boundaries between therapist and client should be avoided (Hill & Knox, 2002). Traditionally, self-disclosure is considered taboo in psychoanalytically oriented treatments where the therapist is to be viewed as a neutral stimulus. The purpose of maintaining this neutral stance is to encourage the client to reveal more about his/her self and to encourage transference onto the therapist so this transference may be analyzed (Jackson, 1990). Modern psychodynamic and interpersonal theories however, acknowledge the role of self-disclosure (McCullough, 2000), particularly the therapist's disclosure of his/her reactions to the client to facilitate the client's awareness about his/her behaviors impact interpersonal relationships (Hill & Knox, 2002).

The principle techniques of instigating change in psychodynamic approaches include: reflection, clarification, interpretation, and confrontation of maladaptive interpersonal patterns, wishes, conflicts, and defenses (Messer, 2001). The principle techniques for instigating change in person-centered treatments include empathetic listening to facilitate increased self-exploration and problem-solving, and the use of reflection and summarizing statements to help the client make important links in their experience (Bohart & Tallman, 1999). CBT tends to use more formalized strategies of instigating change including the use of homework and/or worksheets. Strategies include linking cognition, affect, and behavior, Socratic questioning, challenging of maladaptive cognitions or beliefs, behavioral experiments, or contingency management (van Bilsen, Kendall, & Slavenburg, 1995).
The stance with which the therapist facilitates change is also very important when judging competence. For example, although CBT treatments use active problem-solving and coping skills training the competent therapist does not simply give the client the “answers” but facilitates the problem-solving process to foster independence (Kendall, Panichelli-Mindel, & Gerow, 1995). This is consistent with other approaches such as person-centered therapies that emphasize the importance of facilitating the client’s self-exploration as a means of activating the natural self-healing capabilities (Bohart & Tallman, 1999).

Research has suggested that there are many techniques associated with change processes in clients and thereby beneficial outcomes. Thus, one aspect of general competence may be to utilize specific techniques to promote change. Despite differences in theoretical mechanisms and labels, it appears that therapists attempt to instigate change in their clients by encouraging self-exploration/expression, feedback/interpretations, self-disclosures/modeling, and in vivo activities (e.g. behavioral experiments, role-playing, exposures). Although therapies may differ in the specific application, target-function, or influence process (Orlinsky & Howard, 1987), therapists use these interventions to encourage therapeutic realizations (i.e. change).

**Focused Treatment.**

The next factor is focused treatment, the application of an approach that is focused on specific target problems and uses a relatively limited set of interventions. Some confusion in terminology exists in the literature in which the terms focus, structure, and directiveness are often used interchangeably. Given the exploratory nature of this study, I use a broader, more inclusive, definition of focus with the goal of empirically “pruning” the definition throughout the longer-term measure development process. Therefore, I define focus as therapists’ attempts to concentrate the therapeutic focus on a specific set of target problems utilizing a deliberate set of
techniques. Structure will be used to describe the use of distinct phases of a session (e.g. check-in, skill building, practice, and wrap-up) or phases of treatment (e.g. alliance-building, treatment socialization, active treatment, and/or termination preparation). I will use directiveness to describe the therapist stance that explicitly focuses the clients attention on specific learning targets. From a medical analogy, this can be related to issues of concentration of active ingredients of a dose of medication. When therapists focus treatment on a principal problem using a streamlined set of techniques, it is presumed that said dose of treatment is concentrated on a target symptom. On the other hand, treatment that are characterized by an assortment of techniques aimed at changing targets may be thought of as diluted, and thus has the potential to be less effective. In this section, I make the case for “focused treatment” as an aspect of common factors competence. To do so, I will review the conceptual history of ”focused treatment,” discuss how the concept is viewed by each of the three major theoretical approaches, review the empirical research, and finally conclude with a summary of therapist practices that contribute to a focused treatment approach.

**Conceptual history of focused treatment as common factor.** Factors related to focusing treatment were discussed by only one of the five models reviewed for the proposed study: the TF-PTC (Castonguay & Beutler, 2006). Although it was supported by only one model, it was included in this study because the factor appears to be evidence-based (Castonguay & Beutler, 2006). Positive findings were reported by the TF-PTC (Castonguay & Beutler, 2006) for focused, action-oriented, approaches in the treatment of anxiety, dysphoric, and personality disorders. For example, a structured, action-oriented treatment was listed as “cross-cutting dimension” by the TF-PTC for the treatment of anxiety disorders (p. 177, Woody & Ollendick, 2006). Therapist directiveness and treatment structure are often discussed as a means of focusing
treatment on specific treatment goals (Critchfield & Benjamin, 2006; Follette & Greenberg, 2006; Woody & Ollendick, 2006). Effective directive treatments do not simply direct the client what to do, and when, where, or how to do it (Woody & Ollendick, 2006). It is important for even the most directive therapies to maintain a balance and collaborative working relationship with the client.

Follette and Greenberg (2006) include focused treatment interventions in their list of principles for treatment of dysphoric disorders. They note that empirical evidence suggests that providing direction and a goal-oriented structure are beneficial, particularly in intense and/or time-limited treatments. The use of direction should not be confused with a rigid or domineering stance (Follette & Greenberg, 2006). It is important for the therapist to maintain flexibility and responsiveness to the client’s needs and readiness to change (Follette & Greenberg, 2006; Kendall, Chu, Gifford, Hayes, & Nauta, 1998).

Providing a goal-oriented focus to treatment was considered an important principle of change for the treatment of personality disorders according to the TF-PTC, although the authors noted that it is shared among treatments for other disorders (Critchfield & Benjamin, 2006). They emphasize the use of a focused and coherent treatment that is consistently applied and well coordinated. Linehan and colleagues (2006) emphasized the use of focused treatments for personality disorder treatment through agreement of treatment goals and format, the use of comprehensive treatments that includes enhancement of abilities, motivation, and skills that generalize to the client’s life, and treatment sessions that are focused on clearly prioritized treatment targets. Although the focus of this paper is on common factors in the treatment of children, who cannot be diagnosed with personality disorders, it lends support to the notion that providing a structured treatment that is focused on identified treatment goals is a common-factor
of treatment.

The TF-PTC concluded with the recommendation that therapist provide a focused treatment that is focused on the application of interventions directed toward clearly defined treatment goals. They also recommended that therapists be able to use non-directive therapies skillfully in order to develop a balance between change-oriented and acceptance-oriented strategies (Castonguay & Beutler, 2006). The issue of balance will be discussed in greater detail in the next section on customizing. That fact that focus and structure were only part of the Division 12 Task Force reflects the lack of research on this construct. Consequently, the literature reviewed for this section is rather meager.

**Role of focus in major therapeutic approaches.** Focus is probably one of the dimensions on which the major treatment approaches differ the most, with person-centered therapy being the least directive and CBT treatments representing the most directive. However, as discussed below focus, direction, and structure play an important role even in so-called ‘non-directive” therapies. The increased calls for cost-containment by managed health care have made time-limited therapies more appealing, and brief psychological treatments have been developed for each of the major approaches (Hayes, Follette, Risley, Dawes, & Grady, 1995). These time-limited approaches make use of increased focus and structure to achieve treatment gains in shorter time periods.

**Role of focus in psychoanalytic-based approaches.** Traditional long-term psychoanalytic therapies tend to be client-directed, and thus the therapist’s application of focus was not viewed as relevant to the therapeutic process. From this traditional approach, the therapist analyzed and interpreted whatever the client presented in each session. And yet, the interpretations were typically related to the underlying themes of the therapist’s conceptualization (Messer, 2001).
The emergence of time-limited psychodynamic therapies have supported the usefulness of increased focus, through increased directiveness and structure, in achieving beneficial gains in shorter periods of time, particularly in the increasing movement of psychological treatments under managed health care organizations (Piper, Debbane, Bienvenu, & Garant, 1984). Brief psychodynamic therapies (BPT) create a central focus on an individualized formulation of the client’s presenting problems and organizes treatment around these central themes (Messer, 2001). BPT therapists do this by limiting the therapeutic inquiry and rapidly generating the clinical focus at the beginning of treatment (Messer, 2001). BPTs have been developed following both drive (Davanloo, 1978; Malan, 1963; Sifneos, 1972, Svartberg, 1989), and relational psychodynamic approaches (Luborsky, 1984; Strupp & Binder, 1984). Although several treatment manuals have been developed for BPTs, they do not contain session-by-session guidelines to direct the content of each session. Instead, they describe the underlying conceptualization and strategies that should be used throughout the entire treatment process (Luborsky & Barber, 1993).

Drive theories. Brief psychodynamic theories based on drive theory approaches make use of confrontation and active interpretation of resistances and defenses central to the client's formulation (Svartberg, 1989). The therapist keeps the client focused on the "triangle of person" (significant figures in the client's current life, the transference, and significant childhood relationships) and the "triangle of conflict" (relationships among impulsive/feelings, defenses against them, and anxiety) and are to maintain session structure and focus (Malan, 1963; Svartberg, 1989) The therapist's active confrontation hastens the emergence of unconscious conflicts into awareness so that resolution can be achieved more quickly. The therapist focuses treatment on the repeated cycle of resistance, confrontation, and resolution to create changes in
the core psychic structure (Messer, 2001).

**Relational theories.** Brief relational therapies do not use as much active confrontation as brief drive therapies. Instead, therapists use persistent curiosity, ongoing questioning, clarification, detail seeking, and pointing out gaps and inconsistencies to draw the client back to important targets (Messer, 2001). Therapists actively identify and explore ongoing dysfunctional interpersonal patterns in the client’s relationships with others and in the therapeutic relationship (Strupp & Binder, 1984). Brief relational psychodynamic therapies, such as TLP (Strupp and Binder, 1984) and SE (Luborsky, 1984) use systematic procedures to organize the dynamic focus around a central theme.

**Role of focus in person-centered therapeutic approaches.** Person-centered therapies tend to be the least focused of the therapeutic approaches. It is often referred to as non-directive or client-directed therapy, which reflects the central tenet that clients are active self-healers and the role of the client as the primary mechanism of change (Bohart & Tallman, 1999). Despite this, therapists have an active role in person-centered therapies with the use strategies such as empathetic reflecting and conversational responsiveness that make subtle, complex cognitive-affective connections that the client might otherwise overlook (Bohart & Tallman, 1999). Motivational Interviewing (MI; Miller & Rollnick, 2002) is an example of brief person-centered therapy that is more focused and directive than traditional Rogerian person-centered therapy. From the MI perspective, clients have the necessary intrinsic motivation to change already within them. It is the role of the therapist to elicit this motivation and encourage the client's autonomy for change (Miller & Rollnick, 2002). Although the approach is client centered, the therapist keeps the discussion focused on the topic of change and/or ambivalence toward change.

**Role of focus in cognitive and behavioral approaches.** CBT treatments, particularly
those that follow treatment manuals, tend to be highly structured and focused on the central theme of cognitive, affective, and behavioral influences of the client’s functioning. For example, the Coping Cat manual for the treatment of child anxiety (Kendall, 2000) provides a session-by-session guide of CBT strategies, with each session building on the previous. Each session is composed of distinct phases beginning with the initial check-in and homework review phases, followed by the skill-building phase, and ending with the wrap-up/homework assignment phase. The structure helps to keep treatment on the primary goals of therapy. Despite the structure, therapists are expected to be flexible in implementation (Kendall et al., 1998).

**Empirical evidence for focused treatment.** Luborsky, McLellan, Woody, O'Brian, and Auerbach (1985) examined treatment purity by examining the extent to which therapist using supportive-expressive, CBT, and drug counseling treatments use strategies consistent with their specific treatment approach compared to strategies associated with alternate approaches (proportion of intended strategies over other strategies) and found that this treatment purity was significantly related to outcome. One potential interpretation of these results could be that therapy focused on one treatment approach is more beneficial than eclectic approaches (Luborsky et al., 1985).

Studies comparing structured treatments to “non-directive” treatments for generalized anxiety disorder have reliably demonstrated superiority of the directive treatments (Barlow, Raffa, & Cohen, 2002; Borkovec & Costello, 1993; Borkovec, Mathews, Chambers, Ebrahimi, Lytle, & Nelson, 1987; Woody & Ollendick, 2006). The term “nondirective” may be somewhat misleading, as therapists, following a treatment manual helped to direct clients attention to their feelings whereas direction in the form of advice giving, suggestions, or specific coping methods were prohibited (Borkovec & Costello, 1993). Therefore, even non-directive therapies provide
some focus and direction on the target problems. The differences in outcome may be the result of
differences in dosage or form (e.g. suggestions or coping methods) of therapist direction or
structure.

Patton, Kivlighan, and Multon (1997) found that increasing the use of psychoanalytic
techniques, compared to average use, increased client outcome. Piper and colleagues (1984)
compared Malan’s drive-based BPT to long-term psychoanalytic treatment for anxiety,
depression, and personality disorders found that 22 sessions of the BPT were as effective, and
less costly, than the average 76-session long-term treatment. Research as also demonstrated that
BPT is relatively equivalent to other forms of brief treatments (e.g. CBT; Piper et al., 1998;
Shapiro et al., 1994; 1995).

**Therapeutic practices that focus treatment.** The previous section described compelling
evidence for the use of increased structure and focus in psychological treatment from a variety of
treatment approaches. This is most often achieved by an *active stance* from the therapist (Woody
& Ollendick, 2006). It is important to note that increasing structure and focus does not refer to
therapist-controlled sessions or the frequent use of explicit solution-giving techniques. Therapists
should continue to maintain a collaborative relationship with the client and allow the client to
generate his/her own insights and/or solutions, with the therapist’s skillful guidance (Bohart &
Tallman, 1999; Kendall, et al., 1995; Miller & Rollnick, 2002). The active stance has been
described as focused lines of questioning, using targeted reflection, summarizing, and
interpretations keep the discussion focused on the primary focus of treatment.

The research on treatment purity, adherence, and differentiation (reviewed earlier)
suggests that the use of a repertoire of interventions that is relatively limited to a single approach
may be most beneficial. Studies that have investigated these treatment integrity variables have
used treatment manuals that are relatively brief, structured, and focused (DeRubeis, & Feeley, 1991; Luborsky & Barber, 1993; Shaw et al., 1999). It may be that decreases in adherence or purity reflect not only reflect deviations from the manual’s orientation, but deviations from the central focus of treatment. At this point however, there is not enough evidence to determine if specific combinations of therapeutic approaches have as much impact on the process or outcome as others. For example, the literature has suggested frequent overlaps in techniques without the loss of orientation allegiance, such as the use of relational interpretations in CBT (Crits-Christoph & Gibbons, 2002), or the use of CBT techniques in person-centered therapy (Tursi & Cochran, 2006).

**Responsiveness**

Customizing therapy and responding to individual client needs represents an intuitive component of competent psychological treatment. Unfortunately, there are countless variables and dimensions for which therapy could be customized and there are few variables with sufficient lines of research to guide therapeutic practice. However there are two constructs that have received scientific study and are relevant for the development of an observational measure of therapist competence: client resistance and client diversity. In addition to these two dimensions, I will also include consider how therapists might be responsive to the developmental needs of child and adolescent clients.

**Conceptual history of responsiveness as common factor.** The Division 29 Task Force (Norcross, 2002) included 10 elements related to customizing a therapeutic relationship: two *demonstrably effective elements* (resistance and functional impairment/coping style), and eight *promising elements* (stages of change, anaclitic/sociotropic and introjective/autonomous dimensions, expectations and preferences, assimilation of problematic experiences, attachment...
style, religion and spirit rally, cultural and demographic diversity, and personality disorders). Very few of these elements lend themselves to observational process research as many reflect client characteristics that impact the overall treatment plan across sessions rather than individual in-session therapeutic practices. Only resistance, expectations and preferences (discussed earlier), and diversity (including ethnic, demographic, and religious diversity) were associated with therapeutic practices that can be applied to in session therapeutic behaviors.

The Division 12 Task Force addressed customizing of the therapeutic relationship by echoing the findings of the Division 29 Task Force (Stiles & Wolfe, 2006). The task force could find no contradictory evidence to dispute the findings of the Division 29 Task Force, citing the general lack of research on specific therapeutic relationship variables. The primary difference between the conceptualizations of the Division 12 and 29 Task Forces is the preference for the term *appropriate responsiveness* compared to *customizing* as a way of avoiding the construction of if-then specifications and emphasizing the need for the therapist to monitor and address emerging needs of the client. They highlight the challenge of defining specific techniques or specific levels of techniques, as different clients may require different approaches to achieve the same outcome. In addition, appropriate responses may differ according to theoretical orientation, or intensity of treatment (Newman, Stiles, Janeck, & Woody, 2006). For example, spending considerable time responding to a minor between-session event may be seen as appropriate in a long-term therapy but not in a short-term therapy.

As both Task Forces used the terms customizing and responsiveness to refer to the same basic principles, the terms will be used interchangeably in this paper to avoid the appearance of too much allegiance to either task force. The task forces raise a number of important considerations in the identification of common-factor variables associated with therapist...
competence. The lack of research on customizing and responsiveness variables is not necessarily due to lack of interest or importance, but rather fundamental methodological problems. Each client presents with unique combinations of characteristics, experiences, problems and needs. Our current taxonomies of client characteristics (e.g. diagnosis, race, gender, religion, socioeconomic status, personality characteristics, etc.) provide a rough framework to guide research and practice, but are incomplete and cannot account for the many developments to which a therapist will be required to respond throughout the therapeutic process, let alone an individual session. Resistance, diversity, and developmental stage have the clearest recommendations of therapeutic practices that yield themselves to in-session observation and will form the basis of the COMP-CF measure of responsiveness. As a result, I focus the bulk of the remainder of the discussion on these factors.

**Role of responsiveness in major therapeutic approaches.** The necessity of customizing treatment to client variables and responding appropriately to clients’ need and session developments is generally viewed as equally important for most approaches as reflected in the relative agreement of the Division 12 and 29 Task Forces. This is particularly true with regard to diversity and, to some extent, developmental issues. For example, writings on diversity issues appear in journals associated with each of the major theoretical schools but rarely discussed in theory-specific terms (Chantler, 2005; Hansen, 2000; Walls, 2004). Instead, generic recommendations for increased training, awareness and sensitivity to multicultural issues are the focus of the majority of these writings.

Customizing treatment to developmental stage has dated back to early psychoanalytic therapy (A. Freud, 1946), although definitions of specific developmental stages and underlying development of processes can differ quite radically between the approaches. Despite these
underlying conceptual differences there are phenotypic similarities in the adaptation of treatment with children and adolescents, most notably the use of play and developmentally appropriate language.

Although the recommendations for managing resistance as it arises in a therapeutic relationship is similar for most approaches (e.g. inversely matching levels of directiveness with resistance; Beutler, Moleiro, et al., 2002), the way in which resistance is defined and conceptualized differs by theoretical approach (Norcross, 2002).

**Role of responsiveness in psychoanalytic-based approaches.**

**Drive theories.** Resistance in early drive-theory psychoanalytic approaches is probably the most inclusive of the theoretical orientations, referring to anything that prevents the client and/or analyst from accessing what is in the unconscious (Civitarese & Foresti, 2008). In addition to overt resistance behaviors, subtle behaviors such as forgetting or making verbal errors were considered forms of resistance. In Freud's early theory, resistance, repression, and defenses were intentional, but unconscious, processes to keep certain ideas out of awareness and prevent the experience of unpleasant affect (Freud, 1894). This resistance results from the incompatibility of impulses and drives with dominant social structures (e.g. ego). As a result drive-three approaches tend to address resistances more directly, and sometimes confrontationally in order to bring the protected, or repressed, material into awareness (Messer, 2001).

Development in drive approaches is based on the organization and management of infantile impulses and drives (Greenberg & Mitchell, 1983). Treatment of adults focuses on interpretation to bring repressed content into awareness, and this insight is what is viewed as curative. Free association is a traditional psychoanalytic technique aimed at accesses repressed unconscious content. According to Klein, play served as free association for children (Russ,
Reenactment of old patterns, without the analyst’s participation, is the primary mechanism of change in traditional drive approaches (Greenberg & Mitchell, 1983). In psychoanalytic play therapy, the young child is encouraged to reenact and work through developmental conflicts (Russ, 2004).

*Relational theories.* Because relationship, particularly the therapist-client relationship, is central to relational psychodynamic theories, resistance is viewed as a reaction to the person of the therapist rather than to internal mental content (Greenberg & Mitchell, 1983). The resistant client is wary of the therapist, perhaps because of a history of negative interaction patterns with past objects, and thus resists allowing the therapist to develop an intimate therapeutic relationship (Fairbairn, 1952; Sullivan, 1953). Through the development of a healthy relationship, the therapist is able to gradually break through the resistance by demonstrating new ways of relating.

Play in child object relations or interpersonal psychodynamic therapies allows the therapist to engage and facilitate the creation of a “good object” (Russ, 2004). Relational therapists using play are more likely to engage in the play process with the child than a drive-oriented therapist. From the psychodynamic perspective, the development of children in therapy has been disrupted and the use of play facilitates the development of essential processes such as, delay of gratification, empathy, and problem-solving (Russ, 2004).

*Role of responsiveness in person-centered therapeutic approaches.* In person-centered approaches, a client’s active resistance reflects the client's need for increased understanding and collaboration (Bohart & Tallman, 1999) This is particularly true of adolescents and family therapy who appear disengaged during sessions. Newfield, Kuehl, Joanning, and Quinn (1991) found that behavior that appeared resistant was actually highly proactive strategies at gathering
information from the therapist and family for later use (e.g. manipulation). Although these behaviors may be viewed as treatment-interfering and maladaptive to demonstrate that the client is indeed active in the therapy process (Bohart & Tallman, 1999). In Motivational Interviewing, resistance is viewed as the client’s ambivalence about change and necessitates assessment of the client’s current stage of change (e.g. pre-contemplation; DiClemente & Velasquez, 2002). For example, a therapist who moves too quickly and tries to develop a change plan with a client who has not yet committed to change will likely be met with resistance. In this event, therapists must step back, accept the client’s ambivalence and review the reasons for the ambivalence (Miller & Rollnick, 2002).

Some have argued that person-centered therapy is culture-free based on its emphasis on openness and acceptance (Moodley & Mier, 2007). However others have argued that person-centered treatments have neglected issues of culture and diversity (Chantler, 2005). However, these criticisms echo the criticisms of the field in general by failing to fully appreciate and address issues surrounding racism, discrimination, and prejudices.

As mentioned earlier, play therapy is a popular person-centered therapy used with children (Axline, 1947). In play therapy, play is used as a medium of communication between the child and therapist. The therapist uses the play as an opportunity to respond and empathize with the client, trusting in the natural, self-actualizing development of the child (Russ, 2004)

**Role of responsiveness in cognitive and behavioral approaches.** Resistance in CBT approaches is generally conceptualized as noncompliance with interventions or treatment interfering behaviors (Leahy, 2008; Turkat & Meyer, 1982). The causes of resistance are also conceptualized differently for CBT therapists. For example, a client might resist due to skill-deficits, misconceptions, goal discrepancy, or avoidance patterns (Turkat & Meyer, 1982).
Addressing resistance from a CBT perspective involves identification of the underlying cause, potentially with the use of behavioral analysis, or discussion with the client. For example, resistance resulting from a skill deficit (e.g. relaxation skills) would require increase skill-building efforts, whereas resistance arising from goal discrepancies would require a return to treatment planning and increased collaboration (Turkat & Meyer, 1982).

Like person-centered therapies, CBT tends to view itself as being universal in its underlying principles (Muroff, 2007). However, it has been criticized for being subtly biased towards White middle-class values (Casas, 1996). This may again reflect challenges within the overall field to appropriately respond to individuals with different cultural backgrounds and experiences. The literature, though limited, has demonstrated relatively equivalent outcomes with individuals from diverse ethnic, cultural, and religious backgrounds (Huey & Polo, 2008).

Modification of CBT for use with children and adolescents includes the use of play, although the play is typically structured and intended to serve as skill-building or exposure experiences. For example, role-playing is a popular method of initial practicing of exposure exercises in a safe and fun environment before moving on to more anxiety provoking situations (Kendall, 1992). Play is also used to build rapport early in treatment, and also as an end-of-session reward for participation (Kendall, 1992; Chorpita, 2006).

**Empirical evidence for responsiveness.** Customizing therapy to manage resistance was found to be an effective element by the Division 29 Task Force (Norcross, 2002). According to Beutler, Moleiro, and Talebi’s (2002) review for the Task Force, resistance is a normal response to stress and threat, and does not necessarily reflect pathological behavior. Resistance generally interferes with treatment progress and it is recommended that therapists avoid procedures or interventions that are likely to create resistance. Examples of resistant behavior includes
consistent failure to complete homework tasks, chronic lateness, frequent passive disagreement (e.g. “yes, but…”), and/or angry verbal aggression against the therapist.

Research on resistance has focused on the degree of structure and directiveness of therapeutic interventions and found that treatments can be successfully customized along these dimensions to fit the client’s level of resistance (Beutler, Moleiro, et al., 2002). Studies have suggested that less structured and client-directed approaches are more beneficial for clients with high trait resistance, whereas clients with low trait resistance did best with structured therapist-directed approaches (Beutler, et al., 1991). For those clients who are particularly resistant, research suggests that paradoxical interventions are more effective than non-paradoxical interventions (Hampton, & Hulgus, 1993). Paradoxical interventions (e.g. discouraging rapid changes, symptom prescription, and symptom exaggeration) are designed to elicit oppositional impulses and violation of the directive, leading to increased rate of change and reduction in symptoms (Beutler & Moleiro, et al., 2002). For clients demonstrating state-resistance Beutler, Moleiro et al. (2002) recommend acknowledging and reflecting on the clients experience, discussion of the therapeutic relationship, and renegotiation of the therapeutic goals and roles.

Although ethnic-specific therapies exist, there is unfortunately very little research on outcomes of these therapies compared to more traditional approaches (Sue & Lam, 2002). Indeed, research results have been mixed when examining the effects of population-specific strategies suggesting that such strategies are better suited for some individuals than others within the same population (Sue & Lam, 2002). In addition, there is little research on specific therapeutic practices that are beneficial for working with clients of diverse ethnic backgrounds. The most common recommendation for therapists working with diverse clients is the avoidance of mistakes (Sue & Lam, 2002). When judging therapist competence at customizing treatment
for ethnic diversity it may be important to consider the absence of mistakes as much as any specific therapist behaviors that address diversity due to a potential for low base rates of either types of behaviors.

Research on religious diversity is similar to that of ethnic diversity, and that there is too little research to draw definitive conclusions about the necessity of therapist-client match on religiosity or the use of specific religion-accommodative approaches (Beutler, Blatt, et al., 2006). Studies on religious-accommodative therapies for depression (six Christian accommodative, three Christian group accommodative, and to a Muslim accommodative studies) have yielded mixed results. Of these studies, three demonstrated superior outcomes to standard treatments, two demonstrated mixed findings with improvements on some measures but not others, and four demonstrated equivalent effects. One study showed positive effects but lacked a control group, and another study demonstrated an inferior affects compared to a secular control (Beutler, Blatt, et al., 2006). Only one study has examined religious-accommodative treatment for anxiety disorders in which the initial positive differential treatment gains were lost at six month follow-up (Azhar & Varma, 1995). Despite the paucity research on religious-based therapies both Task Forces recommended the use of religious accommodations when clients had strong preferences (Castonguay & Beutler, 2006; Norcross, 2002).

Therapeutic practices that demonstrate responsiveness. As a result, specific recommendations for most dimensions of client differences are not available and the responsiveness portion of the COMP-CF will require the most clinical judgment of the raters than the other factors. Recommendations for therapeutic practices in this section include effort to respond appropriately to resistance, diversity, and developmental stage. ,

The Division 12 and 29 Task Forces (Castonguay & Beutler, 2006; Norcross, 2002)
recommend responding to resistance with a reduction in therapist directiveness. For clients demonstrating infrequent, state-like resistance a temporary focus on the therapeutic relationship or treatment goals may be all that is necessary. For clients demonstrating strong trait-like resistance, a change in the overall structure of the treatment plan may be indicated (e.g. shift from a brief psychotherapy approach to a slower, long-term approach; Norcross, 2002). The use of skilled paradoxical interventions may be helpful when working with a highly resistant or oppositional client (Hampton & Huglus, 1988). However, paradoxical interventions (e.g. prescribing the problem) are not recommended for behaviors that are potentially harmful.

In the treatment of ethnically diverse individuals the only consistent observable treatment recommendation is the avoidance of mistakes (Sue & Lam, 2002). Recommendations for therapeutic practices based on taxonomies of race, ethnicity, religion, or gender not only overgeneralize large groups of individuals fail to recognize important within-group differences (Chantler, 2005; Sue & Sue, 2003). Therapists are strongly encouraged to develop an awareness of their own culture, values, and beliefs and the culture, values, and beliefs of the cultures of their clients (Sue & Sue, 2003). Furthermore, therapists should be aware of and avoid the use of micro-aggressions- brief, sometimes unintentional, verbal or nonverbal behaviors that communicate derogatory, hostile, or insensitive insults toward people with ethnic, religious, or physical differences. Sue and colleagues (2007) provide a thorough review of common micro-aggressions that occur in therapy interactions, which fall into three categories: micro-assaults (overt verbal or non-verbal behaviors intended to cause harm), micro-insults (subtle snubs that convey rudeness or insensitivities), or micro-invalidations (comments that deny, minimize, or negate the experience of individuals with diverse backgrounds). Research suggests that individuals with mild to moderate religious beliefs/practices do not require specific treatment
considerations. However, individuals with strong religious beliefs may respond best with a therapist with similar religious beliefs or who is comfortable incorporating the client’s religious views and/or practices in treatment (Worthington & Sandage, 2002).

Considering to the developmental stage of the client is an important aspect of attending to the needs of the client that is often not articulated. It is common for treatments for children to use play, simple language, and reduce the amount of cognitive interventions compared to adult interventions to account for their nature inclination to play and undeveloped cognitive processes. Adolescence carries unique challenges that are often overlooked in the psychotherapy literature (Holmbeck, Greenley, & Franks, 2003). Treatments are rarely designed specifically for adolescents, but rather include them in the same treatment as children. In order to appropriately create a measure of competence, the measure must take into account the developmental needs of the client.

In designing a measure of therapist competence for use with child and adolescent clients, it is important to include items that assess the unique challenges that youth pose to providing the therapeutic environment, conceptualizing the problem, structuring the session, and adapting interventions based cognitive maturation. Each of these will be considered in turn.

Children and adolescents do not usually refer themselves to therapy. Parents typically are responsible for requesting and bringing their child for mental health services (Weisz, 2004). The establishment of therapeutic rapport is the first task of a child and adolescent therapist. The use of play is generally successful in winning over children, but adolescents may be more resistant to therapy and see attempts to engage them with play as childish (Kendall, Choudhury, Hudson, & Webb, 2002). As adolescents are beginning to develop more autonomy and independence from adults, they begin to prefer to share personal experiences with peers rather than adults,
particularly their parents. Issues with confidentiality become greater when working with adolescents, so therapists should devote more time to building rapport and establishing a trusting and confidential relationship.

In general, with age children develop an increased capacity to self-reflect, express and report complex emotions and thoughts, understand abstract concepts, and consider the perspectives of others. Children are often unable to accurately report on their emotional states and behavior meaning that therapists must rely more on parent and teacher report. With gains in cognitive processes, adolescents become more self-aware and are better able to develop insight into their feelings and behaviors. This means that as children age, therapists may use more sophisticated therapeutic techniques. For example, therapists using CBT with a young child may have to rely more heavily on behavioral techniques due to the inability of the child to reflect and report cognitions whereas interventions adolescents could maximize their growing cognitive processes and increased ability to address maladaptive thinking through the use of cognitive-restructuring processes (Kendall, 2002).

In sum, responding to the individual needs of the client is a complex process that requires constant monitoring and adjustment by the therapist. In general, competency responding to the needs of the client involves addressing and respecting the cultural diversity of the client, adapting methods to address client’s resistance, and interacting with the client in a developmentally appropriate way. This poses a particular challenge to observational research and one that will likely take time to develop and refine. For example, it is possible that the most competent therapists are those who are able to seamlessly customize treatment without obvious adjustments making observation difficult. However, this presents a testable hypothesis that can be tested over a series of studies: how well can responsiveness be captured by an observational
measure and does it relate to outcomes? The responsiveness scale on the COMP-CF reflects an early effort to answer such questions.

**Summary of Common-Factors**

Efforts to improve the effectiveness of psychological treatments have increased over the last decade. Several APA Tasks Forces have been developed to address issues of evidence-based treatments, relationships, and principles for adult psychological treatments (Castonguay & Beutler, 2006; Norcross, 2002; Task Force, 1995). The research has suggested several process variables that serve as good candidates for consideration of common-factors: therapeutic alliance, positive expectancies, instigating change, focusing treatment, and responsiveness. Several of these have impressive lines of empirical investigation supporting their influence on outcome.

There have been similar efforts to identify effective treatments for child and adolescent treatments (e.g. Kazdin & Weisz, 2003; Silverman & Hinshaw, 2008). Unfortunately, the research base lags far behind the adult literature, where the research emphasis has remained on outcome research and the identification of specific treatments for specific disorders. Despite the importance of the identification of evidence-based treatments, very little research has been conducted on process variables in child and adolescent treatments. The goal of this study is to develop a measure of common-factor competence for child and adolescent treatment to address this deficit.

With the exception of the TF-PTC, the common-factor models were not only conceptualized as theory-neutral, but also disorder-neutral. That is, they were not applied to the treatment of specific disorders, or disorder classes (e.g. internalizing vs. externalizing). The TF-PTC developed a set of disorder-specific and global common-factors (Castonguay & Beutler,
The majority of common-factors I reviewed for this study were considered global common-factors. However, the extent to which a factor is beneficial regardless of disorder is an empirical question that has not been addressed. However, as with efficacy studies, selection of an initial homogenous sample can help establish initial internal validity to test basic theoretical issues. Once support for internal validity has been established, generalization studies can be conducted using more heterogeneous samples. Therefore, this study will examine the basic psychometric properties of the COMP-CF using a relatively disorder-homogenous sample: children and adolescents with anxiety disorders. Once acceptable psychometric properties have been established, future studies can examine the extent to which these common-factor skills are components of effective treatments for youth with other disorders (e.g. depression or disruptive behavior disorders).

Anxiety disorder treatments are useful for examination of treatment processes and the development of treatment process measures. For example, anxiety disorders are one of the most prevalent mental health disorders affecting youth. The National Institute of Mental Health (NIHM) Methods for the Epidemiology of Child and Adolescent Mental Disorders Study (MECA; Shaffer et al., 1996) found that as many as 20.5% of children and adolescents, aged 9 through 17 years, met diagnostic criteria for an anxiety disorder using DMS-III criteria. Once impairment was considered, rates were 13.0%, 7.2%, and 3.2% for youth experiencing mild, moderate, and severe impairment, respectively, associated with their anxiety symptoms. This high prevalence of anxiety disorders means that there is a need for effective treatments, and it is relatively easy to obtain samples to conduct measure development studies.

The COMP-CF measure will include a subscale to address each of the common factors discussed above: alliance-building, increasing positive expectancies, instigating change, focusing
treatment, and responding to the individual needs of the client. *Alliance-building* includes therapeutic practices that facilitate the development of a therapeutic bond between the therapist and client and collaboration on treatment and session goals. This includes the therapist’s warmth and empathy and discussion of therapeutic tasks. *Increasing positive expectancies* are therapeutic practices that increase the client’s beliefs that therapy will help them, the therapist has the skills and treatment program that will help them, and the client is capable of achieving his/her treatment goals. This includes therapeutic practices such as the use of hopeful statements, explanation of the treatment rationale, description of therapist credibility, and statements and tasks that build client’s self-efficacy. *Instigating change* reflect therapists’ efforts to draw the client’s attention to interpersonal and intrapersonal psychological processes and facilitating the practice of new ways of thinking, acting, or behaving toward him/herself and others. *Focusing treatment* includes therapist efforts to make efficient use of time and concentrate therapy on specific target processes. This can be done through the use of increased structure, therapist directiveness, or shaping the discussion or therapeutic tasks on specific themes of treatment. Finally, *responsiveness* describes the therapist’s attempts to address and respond to client characteristics and session developments including cultural/religious diversity, resistance, and developmental needs.

The relationships between these factors are not expected to be orthogonal. Indeed, it is likely that there will be small to moderate intercorrelations between many of the subscales, particularly with alliance. For example, the client’s perception that the therapist believes in the his or her ability to recover (positive expectancies), is actively trying to help the client learn and adjust (instigating change), and is respectful and responsive to his/her individuality (responsiveness) will likely increase the client’s desire to form a bond with the therapist and
collaborate with treatment tasks and goals. Additionally, instigating change and focusing treatment are likely to demonstrate some overlap. As the therapist attempts to maximize change, his or her focus of treatment may also increase. However, these are not expected to covary greatly as it is possible for a therapist to use a lot of strategies to instigate change about multitude of processes, thereby reducing focus. At this point, I am not aware of any studies that have examined all these factors simultaneously. Thus, the relationships between these factors are hypothetical. The development of the COMP-CF will begin to address these questions.

**Measure Development**

The goals of this study are to develop and assess the psychometric properties of a measure of therapist competence for child and adolescent psychotherapy. Three steps are necessary in the development and assessment of a measure: 1) identification and delineation of the theoretical construct to be measured, 2) development of a methodology to measure the construct of interest, and 3) empirically testing the relationships between the constructs and observable manifestations (Cronbach & Meehl, 1955). The preceding literature review identified the constructs and their theoretical interrelationships as a means of identifying the universe of common therapist factors from which the items on the COMP-CF were to be drawn. This is a necessary step in the process of establishing the content validity of the COMP-CF (Loevinger, 1957). I will focus the remainder of this section on steps 2 (methodology) and 3 (empirical analysis) of the measure development process.

**Defining the methodology: observational measurement.** Various methods exist for measuring treatment integrity, including client (youth and/or parent) self-report, therapist-report, and observer-rated measures. Although each provides a unique and important perspective, each has its own set of strengths and weaknesses (Kazdin, 2003). Observational measures provide the
opportunity to sample behaviors of interest directly rather than depending on self or other reports which can be subject to demand characteristics, poor recall, or rater bias (Kazdin, 2003; Moncher & Prinz, 1991). Observational measures are not without limitations, however. For example, it may be difficult to observe the emotional impact of observed behaviors. The perspectives of each participant (i.e. client and therapist) cannot be reliably captured, even if expressed verbally in the session (e.g. statements may be subject to demand characteristics or limited by the expressive ability of the speaker). The case conceptualization is a critical part of understanding the strategies and techniques being employed in each session and across treatment and is not an observable process. As a result, observational measures can provide unique information, but are still limited in the breadth of data they can gather. Despite these limitations, the omission of observational measures can leave many important lines of research explored and limit our understanding of the therapeutic process. A comprehensive study of therapeutic process should include measures from all perspectives: client, therapist, and observer. The goal of this study is to develop and validate an observer-rated measure of therapist competence that, when combined with other measures of the therapeutic process, can fill in an oft-present gap in process research.

Although there are several observational measures in use, precious little systematic research exists to guide critical methodological questions unique to the development, use, and interpretation of observer-rated process measures. Most of the methodological research available for observational measures has used analogue conditions. Most often, the focus of these studies are on client behavior in contrived laboratory settings (Haynes, 2001). Fortunately, several studies have set a precedent for the measurement of therapeutic process utilizing observational measures (Diamond, Liddle, Hogue, & Dakof, 1999; Hill, O'Grady, & Elkin, 1992; McLeod & Weisz, 2005). Observational coding systems have been developed to examine therapeutic
practices such as adherence (Hill et al., 1992; Hogue et al., 1996) and alliance (Diamond, et al., 1999; Faw, Hogue, Johnson, Diamond, & Liddle, 2005; Karver et al., 2008; McLeod & Weisz, 2005). Researchers have created guidelines for development of observational coding, primarily for family therapy process coding (Alexander, Newell, Robbins, & Turner, 1995; Hogue, Liddle, Rowe, 1996; Markman, Leber, Cordova, & Peters, 1995).

Although these coding systems provide guidance, coding therapist competence poses some particular challenges. For example, unlike alliance coding, the focus of competence coding is on the therapist behaviors rather than client-only, or therapist-client interactions. Similarly, family process coding often focuses on interactions between multiple family members and between family members and the therapist (Alexander et al., 1995). Still, several general lessons can be gleaned from these observational studies: (a) coding of entire sessions to capture meaningful behaviors that may have low base rates (Hogue et al, 1996); (b) use of both micro-analytic (e.g. small units of time within the session) and macro-analytic (e.g. rating categorizing the entire session) systems (Hogue et al, 1996; Markman et al., 1995); (c) rating of therapist behavior only (Hogue et al., 1996); (d) provide item exemplars and item distinctions in the coding manual to assist coders in making critical coding decisions (Hogue, 1996); (e) caution coders against the halo effects in which global impressions influence scores on individual items; and (f) use many individual items rather than few summary items (Markman et al., 1995). I applied each of these in the development of the COMP-CF measure described below.

An important consideration in the development and use of observational measures is the selection of the raters. Valis and colleagues (1986) suggested that for adherence and competence measures a single rater is insufficient, and that using the average of multiple raters improve reliability. Most studies examining adherence and competence have used two raters (Barber,
Foltz, et al., 2004, Forgatch, et al., 2005; Trepka et al., 2004). Expert raters (e.g. advanced research faculty, clinicians with years of experience, clinical supervisors) may be more proficient at judging therapeutic processes such as competence. However, expert raters may be costly, may have time constraints, or be in short supply. On the other hand, graduate students may be more cost efficient and are available in larger quantities in academic research settings. Then again, graduate students have less clinical experience to draw upon which may limit their ability to judge therapeutic skill. The feasibility of using graduate students raters has received little empirical attention. However, a few studies have used students as judges of adherence and competence and found adequate inter-rater reliability (Bright et al., 1999; Hill et al., 1992). Barber and Crits-Christoph (1996) found inter-rater reliability between expert and non-expert judges was high when rating general therapeutic skills in cognitive-therapy sessions. Although this is an empirical question with far too little systematic research, it is reasonable to expect that advanced graduate students can be effective raters with adequate training and a well-specified measure and manual. Indeed, this question will be explored in the present study.

The wording of items and scale format can determine how judges understand and rate the therapist and what kind of analyses can be conducted. Items can vary in the degree of inference required to make a rating (Alexander et al., 1995). For example, “therapist uses reflecting statements” requires less inference than “therapist demonstrates empathetic understanding.” Items that are based on directly observable behaviors, like the former statement, are more likely to lead to greater reliability, and will be used in the development of the COMP-CF.

The coding system also affects how raters will make judgments of therapist competence and will determine the kind of analyses that can be conducted. Using taped sessions, investigators can rate the presence of specific treatment components with a simple yes/no
checklist (Bright et al., 1999) or Likert-type scales (Barber & Crits-Christoph, 1996; Barber et al., 2003; Barber, Mercer, et al., 1996; Hogue, et al., 1998). However, therapist competence involves the appropriate use and timing of interventions that cannot be captured using checklists and frequency counts. Hogue and colleagues (1996) recommend the use of Likert-type scales because they have the ability to reflect a range of quality of implementation. These ratings will occur at intervals throughout the session and summary scores will be rated at the end of each session viewing.

Time-sampling possess another critical decision in the development and use of observational measures. This includes decisions about whether an entire session should be coded versus partial sessions (e.g. 10 minute increments, beginning, middle, or end of session increments) as well as whether an entire case should be coded (e.g. all sessions with a particular client) versus select sessions. Microanalytic coding strategies analyze smaller units of time within the session (e.g. 5- to 10-minute increments), whereas macroanalytic coding strategies target larger units of time (e.g. whole session ratings). While macroanalytic coding strategies are better predictors of outcome, microanalytic strategies can provide a wealth of data for more detailed analyses. For example, some studies have selected sessions from cases based on phases of treatment, predetermined session numbers, or random session selection (Diamond et al., 1999; Karver et al., 2008). The primary difference between the sampling decisions is the balance of time efficiency and amount of data. Sampling partial sessions and selecting a few sessions per case is ideal when a large sample size is needed in a relatively small amount of time. However, these abbreviated sampling methods may not capture behaviors with the low base-rate (Hogue, 1996). This could lead to reduced reliability and the omission of important process variables.

In the initial development phase, coding full sessions provides several important benefits:
(a) the ability to capture important, but infrequently occurring behaviors, (b) the ability to analyze timing variables, and (c) the creation of a standard to which shorter time samples can be compared. For example, studies examining the alliance-building process have found that alliance-building behaviors may be most critical (e.g. predictive of outcome) in early sessions and often occur with greatest frequency at the beginning of each session (Horvath and Bedi, 2002). These conclusions were only possible after measuring alliance throughout the entire session and throughout the course of therapy and comparing these ratings to important outcome variables (e.g. client involvement or outcome). Since many of the variables being measured for this project have not been systematically studied using observational research it is important to capture as much information as possible. As the measure is further developed, methodological questions about the most efficient and reliable time sampling methods can be examined.

The development of a manual to guide raters and a thorough training process is critical to achieve reliable ratings, particularly in making judgments about quality or skillfulness. The coding manual for the COMP-CF follows the format used by several observational coding systems such as the Therapist Behavior Rating Scale (TBRS; Hogue et al., 1996) and the Therapy Process Observational Coding System for Child Psychotherapy-Strategies Scale (TPOCS-S; McLeod & Weisz, 2010), which were modeled on the Collaborative Study Psychotherapy Rating Scale (CSPRS; Hill et al., 1992). These manuals include detailed descriptions of each item, guidance on making distinctions between related items, and examples of behaviors consistent with each item and each scaling point. Ratings are based on a 7-point Likert-type scale with anchors set at each point: 1 = very poor; 2 = poor; 3 = acceptable; 4 = adequate; 5 = good; 6 = very good; 7 = excellent. In addition to the use of the coding manual, raters also undergo a thorough training process to ensure reliability. Coders view training
sessions to familiarize them with the coding manual, practice coding tapes, and hold regular
meetings to discuss ratings and prevent rater drift (Hill et al., 1992; Hogue et al., 1996; McLeod
& Weisz, 2010).

Empirically testing measures. The validity of a measure is the extent to which evidence
supports inferences made from the scores (Clark & Watson, 1995). In other words, to what
estent does the evidence support, or fail to support, drawing the inference that scores on the
competence measure reflects the true competent delivery of the observed treatment. However, a
single study cannot answer the question of whether a measure is valid or not. Multiple studies are
needed to build a body of evidence for validity using different methods, samples, and
populations (Clark & Watson, 1995). Clark and Watson (1995; following guidelines
recommended by Cronbach & Meehl, 1955 and Loevinger, 1957) recommend a three step
process for building validity support: 1) define the theoretical and empirical domain (e.g.
content), 2) examine the internal characteristics of the measure (e.g. reliability and internal
consistency), and 3) examine the relationships between the target measures and other measures
within and outside of the nomological net (e.g. construct and discriminant validity).

Reliability Studies. Reliability coefficients provide an estimate of the extent to which a
scale consistently measures the target construct (Benson & Hagtvet, 1996). Of the many ways of
assessing the internal domain of the measure, this study will use interrater reliability, variance
component analysis, internal consistency, and unconditional mixed modeling. Interrater
reliability (also referred to as interobserver agreement) assesses the extent of agreement between
scores obtained from different raters. Interrater reliability estimates are helpful in determining
the quality of items, coding manual, and rater training. The variance component analyses
provides an estimate of the portion of variance attributable to multiple sources of variance
associated with the theoretical source of variance (e.g. therapist differences) versus sources of variance associated with the sampling or measurement process (e.g. coder effects, client differences, session selection). Internal consistency is another reliability estimate that assesses the overall degree of intercorrelation of items that make up a scale and serves as an indicator that the items on the scale are measuring the same latent construct (Clark & Watson, 1995). Finally, unconditional mixed modeling, similar to variance component analysis, provides an estimate of the between-person and within-person variance to determine stability of COMP-CF scores between therapists, and across time within a client. If scores are indeed stable across sessions, it may be possible to sample fewer sessions and aggregate scores across treatment to represent an overall competence score for the therapist or case. However, if scores are not stable, it may be necessary to sample more sessions in order to accurately represent the effects of competence across treatment, and aggregation may not be desired (Crits-Cristoph et al., 2011).

**Validity studies.** Validity studies are necessary to determine whether or not the measure behaves in an expected way with measures of other constructs. Construct validity assesses the degree of similarity (convergence) between measures that are theoretically similar, and is useful when there are no existing pre-validated measures (Crocker, & Algina, 1986; Cronbach & Meehl, 1955). For example, comparing an observer-rated measure of the client’s alliance-related behaviors to observed ratings of a therapist’s competence at building alliance provides evidence of convergent validity.

Measure development and validation requires several steps to ensure that the construct is well-defined and that the measure taps the construct with sufficient accuracy and precision (Cronbach & Meehl, 1955). It is also process requires a series of studies that gradually builds evidence base to support the reliability and validity of measure. The present set of studies is the
first step in that process. Future studies will extend this initial work in an effort to further improve and establish validity of this measure of therapist competence.

**Statement of the Problem**

Many speculate that psychotherapy requires therapists who are competent: those that can decide when and how to implement both specific treatment techniques to maximize therapeutic change as well as effectively manage relational aspects in treatment. The development of reliable and valid measures of therapeutic competence is the first step in empirically testing this assumption. There has been an increased call for research that identifies and measures potentially important process variables throughout the course of therapy (Kazdin, 2007). There are very few measures of therapeutic competence, and the few that do exist are restricted to specific treatment manuals. Furthermore, there are even fewer measures for child and adolescent therapy. Childhood and adolescence carries unique challenges that are often overlooked in the psychotherapy literature, and thus youth focused research is needed (Holmbeck et al., 2003). The purpose of this study is to develop a measure of common-factor therapist competence for youth psychotherapy based on existing adult measures, reviews of the common-factor and youth psychotherapy literatures, and collaborations with psychological treatment stakeholders (e.g. training supervisors, therapists, and parents of child clients). Used in conjunction with adherence measures, the competence measure developed here may help improve our understanding of the therapeutic process and improve outcomes.

The specific aims were:
1. Development a measure of common-factor competence of therapists conducting therapy with youths, based on theories of therapeutic change, existing measures of competence, and collaboration with therapists and training supervisors.

2. Examine the reliability of COMP-CF scores using estimates of a) interrater reliability, b) variance component analysis, c) stability of scores across therapists and across time, and d) internal consistency.

3. Examine the external domain characteristics of the COMP-CF by examining a) convergent validity and b) discriminant validity. Support for convergent validity will be assessed by examining the extent to which the COMP-CF scales correlate with measures of related constructs: therapeutic alliance, CBT-specific competence, and child involvement. Discriminant validity will be assessed by examining the extent to which COMP-CF ratings differ from measures of less-related constructs: adherence to a CBT-treatment manual and a measure of extensiveness of treatment strategies.

**Method**

The current study included one item development study, and a series of psychometric studies designed to establish initial reliability and validity estimates to inform future psychometric investigations. The COMP-CF was developed in conjunction with a suite of measures as part of a larger study assessing various aspects of the psychotherapeutic process including adherence, alliance, and CBT-specific competence (Treatment Integrity Measurement Study; TIMS; Principle Investigators: Michael Southam-Gerow, Ph.D., and Bryce D. McLeod, Ph.D.). In a preliminary study, I engaged in an item development study to generate items and provide initial support for the content validity of the COMP-CF. Next, I conducted four
reliability studies (Studies 1a, 1b, 1c and 1d) and two validity studies (Studies 2a and 2b). In the first two reliability studies, (Studies 1a and 1b), I examined the reliability of the COMP-CF by examining the interrater reliability and conducting a variance component analysis. In study 1c, I examined the between-therapist variance and variance within-therapist across time to determine the stability of scores. In Study 1d, I examined the internal consistency of the items and subscales. I also conducted two validity studies by examining the convergent validity of the COMP-CF scales with measures of therapeutic alliance, CBT-specific competence, and child involvement assessed the same time points (study 2a) and the divergent validity of the COMP-CF by contrasting scores on the COMP-CF scales with scores of CBT adherence (study 2b).

**Preliminary Study: Item Development**

An initial pool of items was created based on a review of the treatment integrity literature and culling therapist competence measures (PACS-SET, Barber & Crits-Christoph, 1996; Cognitive Therapy Adherence and Competence Scale; Barber et al. 2003; Adherence Competence Scale- for Supportive Expressive therapy for Cocaine dependence, Barber et al., 1997; Adherence Competence Scale-IDC, Barber et al., 1996; The Yale Adherence and Competence Scale, Carroll et al., 2000; Therapist Strategy Rating Form, Chevron & Rounsaville, 1983; Manual Assisted Cognitive Therapy-Rating Scale, Davidson et al., 2004; Contextual Assessment of Therapist Adherence/Competence, Hogue et al., 2007; Multicenter Collaborative Study for the Treatment of Panic Disorder- Global Competence Item, Huppert et al., 2001; FIMP, Knutson, Forgatch, Rains, 2003; Therapist Facilitating Scale, Paivo et al., 2004; CBT-Supervision Checklist, Sudak, Wright, Bienefeld, & Beck, 2001; Short Term Anxiety Provoking Psychotherapy Rating Form, Svartberg, 1989; CTS, Young & Beck, 1980)

The initial review resulted in a large item set (n=265). The study PIs and I took several
steps to reduce the items to a more manageable size before engaging in pilot coding. We conducted an initial pruning of items to eliminate items that were redundant, considered too specific to a treatment approach, or not easily observable (e.g. behavior that might take place outside of therapy session). We independently voted (yes/no) on whether to retain the item. Items with at least 2 affirmative responses were retained for the next phase resulting in a reduced set of items ($n=125$). Next, parent and therapists were invited to participate in a survey to evaluate the fitness of the remaining items for a measure of common factors competence. This study was approved by the VCU Institutional Review Board.

**Parent survey.** In the first phase, a survey was sent to the listserv of the Virginia chapter of the National Federation of Families for Children’s Mental Health, an advocacy group for parents of children with mental health concerns. Items generated from the parent survey were added to items culled from the literature and existing measures. Four parents participated in the online survey. All participants were female, married, and had 1 to 2 children who had received mental health counseling. Parents responded to open-ended questions about desirable therapist qualities (e.g. *what qualities or characteristics are important for therapists working with children/adolescents to have?* See Appendix A).

Responses yielded 256 statements that were then grouped into similar themes and redundant items were removed and/or re-written for clarity. Themes and items were reviewed by the study PIs. There was significant overlap with existing items pulled from the literature and other measures. One hundred thirty four items from the parent survey were added to the 156 items pulled from the literature. With a goal of reducing the item set to fewer than 125 items, we independently voted (yes/no) in three additional waves on items to be included in the next phase, retaining items with at least two out of three possible affirmative responses. The resulting 111
items were sorted into factors based on the theoretical model proposed in this study: Alliance-building, Facilitating Positive Expectancies, Focusing Treatment, Instigating Change, and Responsiveness and included in the therapist survey to be rated for content validity.

**Therapist survey.** Therapists from a variety of settings (e.g. university treatment and research centers, private practice) and a range of theoretical orientations were invited to participate in this study. Emails were sent to listservs of faculty from universities with clinical child psychology training programs, Division 53 of the American Psychological Association (APA)-Society of Clinical Child and Adolescent Psychology, APA Division 12-Society of Clinical Psychology, APA Division 16 -School Psychology, APA Division 17- Counseling Psychology, APA Division 29- Psychotherapy, APA Division 39- Psychoanalysis, APA Division 42- Psychologists in independent practice, APA Division 32- Society for Humanistic Psychology, and the Association of Behavioral and Cognitive Therapies.

Sixty-six people completed at least part of the survey, with 22 completing the entire survey. Fifty-two of the therapist participants reported their primary theoretical orientation: behavioral n=8, CBT n=25, eclectic n=1, psychodynamic n=6, system n=4, “other” n=8 (4= integrative, 1=acceptance/commitment therapy, 1=reality therapy and 1=empirical). Therapist participants were 39.4% male, 90.9 % Caucasian, 7.6 Hispanic/Latino, 1.5% African American, 1.5% Asian, and 1.5% Pacific Islander. Their self-reported professional specialty were: Psychologist=84.8%, Social Worker=4.5%, and Other=9.1% (4 graduate students). Of these 59.1% were state licensed, 9.1% were awaiting license or in graduate school. The highest degree completed by participants were 68.2% PhD, 10.6% PsyD, and 40.9% Master’s. The majority identified themselves as primarily a child/adolescent therapist (67.3%).

Therapists were asked to rate each item (a) how well the item measured therapist
competence, and (b) how common the item is to all therapies to establish the content validity, using a 7-point Likert-type scale (0 = “poor item” to 6 = “excellent item”) via an online anonymous survey. Participants were asked to rate the importance of each item, provide feedback, and suggest additional items. Items with average quality ratings of 4.5 (out of 6) were retained, resulting in 44 items.

Additional therapy experts reviewed the COMP-CF items and provided feedback. These included the PIs, experts in CBT treatment for youth, and two CBT-manual developers (John Weisz, Ph.D. and Phillip Kendall, Ph.D.). VCU faculty with expertise in psychoanalytic and psychodynamic theory and treatment also reviewed the measure and provided feedback. The final version of the COMP-CF measure included items with the highest ratings, after the elimination of redundant or highly overlapping items, and supplemented with items suggested by the literature in order to ensure a balance between empirical and theoretical evidence, resulting in 19 items.

**Psychometric Studies 1 and 2**

The preliminary studies described above provided support for the content validity of the initial COMP-CF item pool. The following section describes the steps that were taken to further develop the COMP-CF and examine its psychometric properties. I will describe the coding manual development process, training of coders, sample of video- and audio-taped sessions of child/adolescent treatment, and the series of studies designed to test the internal and external domains of the COMP-CF psychometrics.

**Procedures.**

**Research setting and materials.** The video- and audio-tapes that were rated for this study were part of a large clinical effectiveness studies: UCLA Youth Anxiety Study (YAS; principal
investigator: John Weisz, Ph.D.), and from a randomized clinical efficacy trial comparing individualized CBT, family CBT, and an active control (CCT; Kendall, Hudson, Gosch, Flannery-Schroeder, & Suveg, 2008). Together, these tapes represent sessions from clients and therapists in two metropolitan areas (Los Angeles, CA, and Philadelphia, PA) from community clinics (YAS) and a university-based clinic specializing in anxiety disorders (CCT). These samples were selected to ensure a sample that is heterogeneous with respect to therapist, client, and setting characteristics and that provides a full range of competence and adherence scores for ideal data analysis.

All video or audio tapes were in CD, DVD, or media file format and rated at Virginia Commonwealth University in laboratory space provided by Dr. Southam-Gerow. This space consisted of a private office, with a locked door, equipped with computers with enhanced security to protect session materials. Each station was equipped with headphones to protect confidentiality of participants.

**Treatment.** CBT-trained therapists from the YAS sample provided treatment for child anxiety disorders following the *Cognitive-Behavioral Therapy for Anxious Children: Therapist Manual-Second Edition* (Kendall, 2000) and parallel *Coping Cat Workbook*. The Coping Cat program is an empirically supported 16-20 session therapy that includes psycho-education of anxiety and skill building, followed by graduated exposure through role-plays, imaginal exposure, and *in vivo* exposure. The techniques outlined in the first nine sessions include relaxation training, identification of anxious cognitions, problem-solving, and homework. In addition to session structure and content, the manual includes discussion on flexible implementation and recommendations for adapting the manual to meet specific client needs associated with comorbid disorders. Therapists from the CCT followed the 3rd edition of the
Coping Cat Program (Kendall & Hedyke, 2006a&b). Changes to the manual were largely cosmetic (e.g. updated graphics, etc) and did not include substantial changes to the treatment approach or treatment structure.

**Therapist participants.** Therapists, clinical staff from each site that participated in the YAS and CCT projects discussed above, included licensed and license-eligible therapists and trainees (e.g., interns and externs). Therapist participants represent a range of professional training (i.e. social workers, marriage and family therapists, clinical and counseling psychologists). Therapists from the YAS study were 83% female (n=10). Their discipline identification was psychology=41.7%, social work=33.3, and marriage/family therapist=16.7%. Five therapists were licensed professionals (41.7%), five were interns/externs (41.7%), and 2 were “other” (16.7%). Therapists from the CCT were master’s level psychology doctoral students and doctoral level psychologists. Specific descriptive information on these therapists is not currently available.

**Measures.**

**Common Factor Therapist Competence Scale for Youth (COMP-CF).** The COMP-CF (see Appendix B) contains 19 microanalytic items in five theoretically-derived subscales: Alliance-building, Positive Expectancies, Instigating Change, Focusing Treatment, and Responsiveness. Each scale includes one face-valid item capturing the general skill for which each scale was named and two to four items capturing theoretical components of that skill based on reviews of the literature and related measures.

Items are rated on a 7-point Likert-type scale. A five point scale was initially piloted, however coders reported that they did not feel like the scale reflected the variability of therapist performance and that a 7-point scale was preferred (Brown, Quinoy-Boe, Marder, McLeod, &
Southam-Gerow, 2009). Coders pause the tape at 15-minute intervals throughout the session and make brief ratings of each item. The coding manual was developed following the exemplar coding manuals of the TBRS (Hogue et al., 1996), TPOCS-S (McLeod, 2011), and CSPRS (Hill et al., 1992). At the end of the session, the raters provided a score for each of the 19 items and complete ratings on 10 global competence ratings capturing subjective feelings of the therapist’s performance in session. Scale scores are created by averaging the scores of the items within each scale score (including the scale face-valid item).

**CBT for Youth Anxiety Therapist Competence Scale** (COMP-CBT-YA; Southam-Gerow, McLeod, Quinoy, Eonta, 2011). The COMP-CBT-YA is a 23-item observer-rated measure with 3 subscales: Structure, Model, and Delivery. The COMP-CBT-YA assesses the quality of the therapists’ implementation of specific CBT intervention strategies. The Structure scale assesses the quality with which the therapist manages the prescribed session structure (e.g. agenda setting, homework, review, etc). The Model scale assesses quality of implementation of session content based on the CBT-model of therapy as prescribed in the treatment manual (e.g. cognitive restructuring, problem-solving, exposure). The Delivery scale assesses the quality of treatment delivery methods (e.g. didactic, modeling, rehearsal). The competence ratings of the macroanalytic scale are evaluated on a 7-point scale (1=Very Poor, 4=adequate, 7=excellent). The corresponding manual defines descriptors of each anchor for each technique in each session. The COMP-CBT is still in the preliminary stage of development and the scoring system has yet to be finalized, particularly regarding scoring of items that are not expected to occur each session. As such, I will use three individual items (averaged across coders) from the Structure Scale: *within-session CBT focus, across-session CBT focus, and CBT structure/pace*. These items reflect skills that are expected to occur every session, thus providing coders with sufficient
opportunity to observe and rate the quality of these CBT-related skills.

**Therapy Process Observational Coding System for Child Psychotherapy-Alliance Scale** (TPOCS-A; McLeod & Weisz, 2005). The TPOCS-A is an 9-item observer rated measure the therapeutic alliance. It includes 6 items that measure the affective bond between the client and therapist and 3 items that measure collaborative involvement in treatment tasks. The TPOCS-A is scored on a 6-point scale ranging from 0 (not at all) to 5 (a great deal). Item scores were averaged for both coders. Items from the bond and task subscales are combined to form a total TPOCS-A score. Previous studies on the TPOCS-A have demonstrated adequate psychometric properties (Chiu, McLeod, Har, & Wood, 2009; McLeod & Weisz, 2005).

**Therapy Process Observational Coding System for Child Psychotherapy-Revised Strategies Scale** (TPOCS-RS; McLeod, 2011). The TPOCS-RS is a 42-item observer-rated measure that assesses the extensiveness of which therapists use various therapeutic interventions associated with common therapeutic approaches for youth psychotherapy. The items of the TPOCS-RS are grouped within 5 subscales including Cognitive, Behavioral, Psychodynamic, Family, and Client Centered. An additional scale, the TPOCS-Coping Cat (TPOCS-CC), has been used to assesses extensiveness of interventions specific to the Coping Cat manual, and was found to differentiate usual care and Coping Cat therapists better than the TPOCS Cognitive or TPOCS Behavioral Scales (Southam-Gerow et al., 2010). Items are rated on a 7-point scale to reflect the “extensiveness” of which that item was represented in each observed session, ranging from “not at all” to “extensively.” Item scores were averaged for both coders, and these item-scores were averaged to create subscale scores. Extensiveness ratings are based on the rater’s perception of two dimensions: thoroughness and frequency. Thoroughness captures the depth and intensity of the intervention, whereas frequency captures the number of times or amount of
time spent employing the intervention. The TPOCS-RS is a revised version of the TPOCS-S (McLeod, 2001) which has demonstrated good reliability, internal consistency and validity in a previous study (McLeod & Weisz, 2010). Interrater reliability and internal consistency will be examined and reported for this sample. As the sample is comprised of individual-focused CBT treatment, Family and Psychodynamic scales will not be analyzed as these interventions were not used with enough frequency for appropriate analyses (e.g. floor effects that may lead to spurious correlations). This study will examine the correlations between COMP-CF, and TPOCS-Coping Cat and TPOCS-Client Centered as measures of adherence and extensiveness that should be differentiated from common-factor competence.

Child Involvement Rating Scale (CIRS; Chu & Kendall, 1999) is a 6-item observer-rated measure of child involvement and participation in a therapy session. The measure includes 4 positive involvement items and 2 negative involvement items that are rated on a 6-point scale ranging from “not at all” to “a great deal.” Negative involvement items are reverse-scored and summed with the positive involvement items to produce a single child involvement. The average of both coders scores were used in analyses. The CIRS has demonstrated sound psychometric properties and has been used to predict treatment outcome (Chu and Kendall, 2004).

Coding procedures.

Coders. Coders were advanced doctoral students. Coders had clinical training specializing in the treatment of anxiety disorders at Virginia Commonwealth University’s Center for Psychological Services and Development Anxiety Clinic. This clinic is a public specialty mental health clinic serving a metropolitan area. The clinic specializes in the treatment of anxiety disorders in children, adolescents, and adults using cognitive-behavioral techniques. Coders also have received general mental health service training (non-manualized general therapeutic
techniques for a variety of disorders).

In this study, two coders were used to rate each session. Measures were coded by separate pairs of coders to prevent contamination across measures and to reduce coding burden. One coding pair coded both TPOCS measures and CIRS, another pair coded COMP-CF, and another pair coded COMP-CBT. As one of the aims of this study is to examine the relationship between adherence and competence, it is important that the same coder is not used to rate both constructs. Coders rated training tapes until adequate reliability was met (minimum ICC of .60) on most items. Coders then coded a set of 32 certification tapes that had been rated by two CBT experts. Coders must achieve an ICC of .60 to be considered certified and begin coding for the study. Weekly meetings were held to discuss concerns and discrepancies of scores and to prevent coder-drift. Coders independently watched session tapes and completed ratings on their respective scale during viewing.

**Data analysis plan.**

**Power analysis.** Correlations were used to examine the reliability and validity of the COMP-CF measure. A power analysis was conducted using the software program G*Power 3 (Faul, Erdfelder, Lang, & Buchner, 2007) to determine the minimum sample size needed to obtain power of .80 with alpha of .05. To detect a significant correlation of moderate size (e.g. \( r = .50 \)), a minimum sample size of 23 is needed. Detection of a small correlation (\( r = .30 \)) requires a sample size of 67. As described below, internal consistency and validity analyses are expected to be in the moderate range. Discriminant validity is expected to be in the small range. Thus, a minimum sample of 67 is required.

I conducted a series of multi-level models to assess variance components of sources of variance as an estimate of measure reliability and to examine the course of COMP-CF scores
over time. According to Snijders (2005), the power to detect an effect at a given level is determined by the sample size at that level. I propose to analyze 3-level models with Therapists, Clients, and Sessions. According to Snijders, the average cluster size (e.g. 3.3 sessions per client, or 2.17 clients per therapist) has little effect on the power of the test of regression coefficients (e.g. fixed effects). The low average cluster size will limit the power for testing random slope variances, particularly at the therapist level. Using Restricted ML (REML) instead of ML is preferred when the sample size is small, and examination of the information criteria with a log likelihood ratio test can help address potential estimation bias. Thus, results of the multi-level models should be considered preliminary. These tests are conducted as part of this study to generate hypotheses that can be tested once the full sample has been collected.

**Study 1: Reliability studies.** A series of studies were conducted to assess the internal domain of the COMP-CF measure. These studies will examine the extent to which the COMP-CF accurately and precisely measures the target construct (e.g. the internal domain). This includes four reliability studies: inter-rater reliability, variance components, internal consistency, and unconditional linear mixed modeling.

**Study 1a. Inter-rater reliability.** Intra-class correlations were calculated across all raters for each of the items to examine inter-rater reliability (ICC; Shrout & Fleiss, 1979). The ICC is commonly used to examine inter-rater reliability and have been used in most studies measuring competence (e.g. Barber et al., 1996; Carroll et al., 2000; Vallis et al., 1986). The ICC provides an estimate of the ratio of the true score variance to total variance. The reliability coefficients represent the model ICC (2,2) based on a two-way random effects model, and is identical to Conbach’s alpha. These correlations provide a reliability estimate when the same coders are used to rate all sessions and are considered a random sample of all possible coders. This ICC model
allows for greater generalizability of the results to other samples compared to ICC models that consider coders fixed effects (e.g. the only coders of interest). Furthermore, this model assumes that the mean of coders’ scores will be used in subsequent analyses. Using the mean of two coders improves the reliability of the measurement for analyses and improves power, but limits generalization to studies using only a single coder (Vallis, Shaw, & Dobson, 1986). As a result, all subsequent analyses use the mean of both raters’ scores. Following Cicchetti and Sparrow (1981), ICCs values below .40 reflect "poor" agreement, ICCs from .40 to .59 reflect "fair" agreement, ICCs from .60 to .74 reflect “good” agreement and ICCs .75 and higher reflect "excellent" agreement. For this study we aimed to achieve ICCs in the “good” to “excellent” range of inter-rater reliability for most items.

Study 1b. Variance components analysis. Variance Component Analysis (VCA) of the COMP-CF was conducted to determine the proportion of total variance in COMP-CF scores accounted for by potential sources of variance such as coder, therapist, and client. VCA provides an estimate of the reliability of a measure by determining how much of the variance in COMP-CF scores is due to the factors related to the hypothesized construct (differences between therapists) versus sources of error (i.e. difference across time, differences between coders, differences between study). Linear mixed-effects model (MIXED) procedure with restricted maximum likelihood estimation (REML) in SPSS was used to estimate the variance components. MIXED procedures are appropriate for data that are correlated (such as repeated measures), and/or nested (such as clients within therapists,). Furthermore, MIXED allows for unbalanced designs with missing data. For this study sessions were randomly selected from a larger pool. As a result, data points may be missing due to sampling (missing by design) or unplanned sources (e.g. lost tapes, missed sessions, or attrition). The following sources of variance were estimated:
Therapist, Client (nested within therapist), Coder, and Residual (i.e. unexplained variance). All sources were entered as random effects. It is hypothesized that the majority of variance in COMP-CF scores would be due to differences in therapist competence, therefore it was expected that Therapist would have the largest variance component estimate.

It is important to note that therapists were also nested within clinic sites and nested within study (CCT). Differences in COMP-CF scores between studies were expected to be due to systematic differences in the study. CCT represents a highly controlled effectiveness trial with therapists from a university specialty clinic that received training by the manual developers, implemented treatment with pilot cases, and received 2 hours of weekly supervision. YAS represents an efficacy trial in which treatment was implemented by therapists in community practice from a variety of training backgrounds and clinical experience. Due to the small number of sites, and relatively small sample, the effects of these variables cannot be estimated with sufficient power (Berkof & Snijders, 2001; De Jong, Moerbeek, and Van Der Leeden, 2010).

These samples were selected for the larger study to ensure sufficient variability and range of scores. Given that study or site effects are not a variable of interest in the current study, the effect of study will be “ignored” in the analyses, but will be examined as part of the larger study (M. A. Southam-Gerow, personal communication, August 9, 2011).

**Study 1c. Stability of COMP-CF scores.** Applied longitudinal data analysis (ALDA) methods using linear-mixed modeling (c.f. Singer & Willett, 2003) was used to examine a) proportion of variance in COMP-CF scores attributed to between-therapist differences and b) estimate the within-person variance to determine if there is significant within-person variance across time. There are several advantages of the ALDA procedure that make it suitable for estimating the course of COMP-CF. First, ALDA can provide stable estimates with unbalanced
datasets, data in which measurement occasions vary. This makes it ideal for a study utilizing
random sampling of therapy sessions in which the time between sampled sessions may vary,
participants may have a different numbers of sampled sessions, or data is missing for unplanned
reasons. While it is recommended that the majority of participants have at least 4 data points,
participants with fewer data points can still be included in the model. Even participants with one
data point can be used to assess intercept fixed effects. This procedure allows for maximal
extraction of information from the available data.

The course of COMP-CF scores throughout treatment were examined to determine if
COMP-CF scores appear to be relatively stable across time, exhibit linear change, or exhibit non-
linear change (e.g. quadratic). The first step of ALDA requires visually examining empirical
growth plots of random samples of the sample to estimate what trajectory appears to fit most of
the subjects. Next, two unconditional multilevel models are fitted to the data: a means model and
a growth model. The first is an unconditional means model that examines variation across
therapists COMP-CF scores collapsing across time. This model estimates a fixed effect, which
determines if the grand mean of the sample is different from zero. The model also examined two
random effects, which examines the within and between person variance to determine if
therapists differ from each other in COMP-CF and if they change across time. No predictors
were entered into the model at this step. This model simply determines whether there is enough
variability in COMP-CF to explore any further. The means model also provides estimates of
variance components using intraclass correlation coefficients. These describe the proportion of
total variance in scores that is accounted for by differences between therapists.

The second model was an unconditional growth model, and adds the repeated measures
predictor (session number). This model estimates therapists’ individual “true change
trajectories,” as opposed to deviations from the person-specific means of the initial means model. This model estimates how much therapists differ with regards to their individual change trajectories and whether interindividual differences in change are due to interindividual differences in initial COMP-CF scores or true rate of change in COMP-CF scores over time. The fixed effect of this model estimates the population average COMP-CF (intercept) and the average change trajectory (slope). The null hypothesis of this fixed effect determines whether the average true change trajectory in COMP-CF scores across treatment has a non-zero intercept and non-zero slope.

Variance components estimates of the growth model were used to determine whether there is statistically significant variation in individual initial COMP-CF or rate of change throughout treatment. The difference between the means model and growth models’ level-1 variance components reflects the percentage of COMP-CF score variation accounted for by linear time. If this difference is significant, then the growth model is a better representation of the data, and the rate of change appears to be linear. If this difference is not significant, than either the means model is a better representation of the data, or the rate of change is non-linear. If the null hypothesis is rejected, there is important within-person variation not accounted for by the model and fitting level-1 predictors may be warranted.

Level-2 variance components provide an estimate of the unpredicted variation in true initial COMP-CF and true rate of change throughout treatment. If the null hypothesis is rejected, true initial status and true rate of change is non-zero and fitting predictors to the level-2 model may be warranted. It was hypothesized that therapist competence is a fairly stable construct within an individual case, with only minor fluctuations across treatment.

**Study 1d. Internal consistency.** Cronbach’s alpha was examined as a measure of internal
consistency with target alpha between .80 and .90, as recommended by Clark and Watson (1995). Whereas high coefficient alpha may provide evidence of high interrelatedness among items, it may also indicate item redundancy (Cortina, 1993). Therefore, extremely high alphas should not be interpreted too optimistically as a sign of optimal scale development, nor should moderate alphas be viewed as a sign of poor scale construction (Cortina, 1993).

**Study 2: Validity studies.** Comparisons between COMP-CF and the measures examined for construct validity were conducted in a pairwise fashion to maximize the sample size and power. This resulted in sample sizes ranging from 110 (COMP-CF and COMP-CBT) to 135 (COMP-CF and TPOCS-RS) versus a sample size of 98 if cases were selected listwise (e.g. cases with all measures coded). Correlations were examined using both pairwise and listwise deletion and no significant differences were observed in the resulting correlation pattern. Results for the pairwise analyses are reported.

**Study 2a. Construct validity.** A subset of recordings (n=135) of the sample was coded for therapeutic alliance using the TPOCS-A (McLeod & Weisz, 2005). Pearson correlations between all COMP-CF scales and TPOCS-A were expected to be strong (i.e., $r > .3$) and in the positive direction. The COMP-CF alliance-building scale was expected to demonstrate the highest correlation with the TPOCS-A (i.e. $r > .5$).

A subset of the sample was be coded for level of child involvement in the session using the CIRS (n=132). The CIRS measures the extent to which the child is involved in treatment. Clients who are more involved in treatment are more likely to experience the benefits of treatment (Chu & Kendall, 2004). Therefore, the correlation between COMP-CF Alliance Building and CIRS is expected to be positive and strong (i.e. $r > .4$). Furthermore, clients who have positive expectancies are also more likely to engage in treatment (Meyer et al. 2002).
Therefore, the correlation between COMP-CF Positive Expectancies and CIRS was also expected to be positive and strong (i.e. $r > .4$).

COMP-CF and COMP-CBT assess the competent delivery of therapy. COMP-CF, however, is a more general measure of competency and so includes items that would not be expected to be directly related to COMP-CBT. Thus, these measures were not expected to demonstrate high overlap. As manualized CBT is typically highly structured and focused on specific skills, therapists who are rated as being highly competent in maintaining the standard structure of CBT (COMP-CBT structure/pacing), and maintaining a within- and across-session CBT focus would also be rated as being highly competent at Focusing Treatment and Instigating Change of the COMP-CF ($r > .3$).

**Study 2b. Discriminant validity.** Pearson correlations were used to examine the relationship between TPOCS-RS Cognitive, Behavioral, Coping Cat, and Client Centered subscales and COMP-CF to examine the extent to which scores on the adherence and competence measures overlap. TPOCS-RS Psychodynamic and Family subscales were not used as this sample includes therapists using only individual-focused CBT treatment and scores of these subscales are severely restricted to the floor of the scale (Psychodynamic $M=1.17$, $SD=.39$; Family $M=1.33$, $SD=.64$). Therefore, the TPOCS-RS Cognitive and Behavioral scales are used as a measure of adherence to a general CBT framework, whereas the Coping Cat subscale is used as a measure of adherence. All correlations were expected to be moderate ($r < .30$). Other studies that have not considered competence to be subsumed under adherence have found moderate to high covariance (Barber & Crits-Christoph, 1996; Barber et al., 1996; Carroll et al., 2000). These studies used the same raters to measure both adherence and competence. It was expected that the correlations would be smaller in this study due to the use of separate raters.
Results

Overview

Before presenting the primary analyses, I (a) provide the sampling plan, including handling of missing data, and (b) present descriptive statistics on the measure and its items. After these preliminary sections, the results of studies 1 (reliability studies) and 2 (validity studies) are presented.

Sampling plan. For the psychometric studies, independent coders rated video and audio taped sessions of CBT treatment for child anxiety drawn from a pool of randomized sessions from 78 cases from two treatment trials (54 CCT, 24 YAS). Odd-numbered sessions between session 3 and 15 were sampled for the initial wave of the TIMS study. The final pool of available sessions was approximately 550. These tapes were randomized and the first 142 tapes that were rated on the COMP-CF by two coders were selected for this study, and average of both coders’ scores were used for all analyses (except interrater reliability). In the event that the target odd-numbered session was not available, the next session was selected. If that session was not available, the session prior to the original target session was selected. If all three sessions were not available, the session was skipped. In this sample, 29 tapes that were initially targeted were not coded due to the recording being missing or problems with the quality of the recording that made coding impossible. Within the tapes that were sampled, no coder ratings were missing.

Descriptive statistics. The final sample of COMP-CF scores included 142 sessions that were coded by both coders. The sample included 28 therapists (14 therapists from YAS, 14 therapists from CCT), and 61 clients (report by study also). There were an average of 5 sessions per therapist ($SD=3.62$). The average number of sessions per client was 2 ($SD=1.26$, range: 1-5 sessions). 13 therapists had multiple clients ($M=3.46$, $SD=2.18$, range: 1-9 clients).
Means and standard deviations of COMP-CF scores are presented in Table 2. Means generally fell about the center point of the scale (i.e. “4” on the 7-point scale). Skewness and kurtosis were examined for the COMP-CF subscales. The Shapiro-Wilk test of normality was significant for Focusing ($p<.000$), Instigating Change ($p<.000$) and the COMP-CF total score ($p=.002$) indicating that these scales were negatively skewed (i.e. with many therapists scoring in the higher range of competence). Examination of histograms revealed that the full range of the scores was represented for these scales. Alliance Building, Positive Expectancies, and Responsiveness were normally distributed. However, correlational and regression based analyses, such as those used in the present study, have been demonstrated to be robust to nonnormality (Norman, 2000).

**Study 1: Reliability Studies**

**Study 1a. Interrater reliability.** Interrater reliability was calculated for all items based on a two-way random effects model, ICC (2,2). The following guidelines were used to assess reliability: ICCs values below .40 reflect "poor" agreement, ICCs from .40 to .59 reflect "fair" agreement, ICCs from .60 to .74 reflect “good” agreement and ICCs .75 and higher reflect "excellent" agreement (Cicchetti and Sparrow, 1981). ICCs for the COMP-CF items ranged from .53 to .79 (Table 2). This included 3 items in the “fair” range, 10 items in the “good” range, and 6 items in the “excellent” range.
Table 2.

*COMP-CF Item Interrater Reliability, Subscale Internal Consistency, and Means*

<table>
<thead>
<tr>
<th>Item Description</th>
<th>ICC</th>
<th>M (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Alliance Building (α=.89)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Alliance building/maintenance</td>
<td>.71</td>
<td>4.57 (.77)</td>
</tr>
<tr>
<td>2. Conveys understanding</td>
<td>.68</td>
<td>4.67 (.89)</td>
</tr>
<tr>
<td>3. Demonstrates positive regard</td>
<td>.65</td>
<td>4.08 (.81)</td>
</tr>
<tr>
<td>4. Elicits client's perspective/experience</td>
<td>.72</td>
<td>4.86 (.99)</td>
</tr>
<tr>
<td>5. Fosters collaboration</td>
<td>.61</td>
<td>4.57 (.83)</td>
</tr>
<tr>
<td><strong>Positive Expectancies (α=.86)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Positive Expectancies</td>
<td>.59</td>
<td>4.09 (.81)</td>
</tr>
<tr>
<td>7. Facilitates treatment expectancies</td>
<td>.54</td>
<td>3.99 (.99)</td>
</tr>
<tr>
<td>8. Facilitates therapist credibility</td>
<td>.78</td>
<td>4.22 (.79)</td>
</tr>
<tr>
<td>9. Facilitates client self-efficacy</td>
<td>.78</td>
<td>4.07 (1.16)</td>
</tr>
<tr>
<td><strong>Focusing Treatment (α=.90)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Focusing Treatment</td>
<td>.77</td>
<td>4.72 (1.05)</td>
</tr>
<tr>
<td>11. Structure and Pace</td>
<td>.77</td>
<td>4.77 (1.17)</td>
</tr>
<tr>
<td>12. Continuity of treatment</td>
<td>.79</td>
<td>4.82 (1.28)</td>
</tr>
<tr>
<td>13. Focuses on key themes in session</td>
<td>.79</td>
<td>4.23 (.98)</td>
</tr>
<tr>
<td><strong>Instigating Change (α=.97)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Instigating Change</td>
<td>.79</td>
<td>4.60 (1.20)</td>
</tr>
</tbody>
</table>

118
Table 2 continued

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>15. Uses change strategies effectively</td>
<td>.73 4.60 (1.20)</td>
</tr>
<tr>
<td>16. Facilitates active client participation</td>
<td>.75 4.63 (1.24)</td>
</tr>
<tr>
<td>Responsiveness ($\alpha = .94$)</td>
<td>.70 4.29 (.96)</td>
</tr>
<tr>
<td>17. Responsiveness</td>
<td>.67 4.30 (.99)</td>
</tr>
<tr>
<td>18. Fosters client’s motivation</td>
<td>.62 4.32 (1.00)</td>
</tr>
<tr>
<td>19. Flexibility</td>
<td>.68 4.25 (1.03)</td>
</tr>
</tbody>
</table>

Note. $n=142$. Interrater reliability based on model ICC(2,2).

Interrater reliabilities for the other process measures used in this study are presented in Table 3. ICCs for all COMP-CBT items ranged from ICC=.06 to .98. Only one item was in the “poor” range, four items were in the “good” range, and 18 items were in the “excellent” range. The reliability for the COMP-CBT items used in this study were: ICC=.81 for Within Session CBT focus, ICC=.76 for Across Session CBT focus, and ICC= .80 for CBT Structure.

ICCs for the TPOCS-A items ranged from .52 to .83. One item was in the “fair” range, one item was in the “good” range, and the remaining 7 were in the “excellent” range. The ICC for the TPOCS-A total score used in subsequent analyses was .85. The ICCs for the TPOCS-RS ranged from .34 to .98, with three items that could not be calculated due to zero variance, or negative covariance. Six items were in the “fair” range, 10 items in the “good” range, and 25 items in the “excellent” range.

ICCs for the CIRS items ranged from .21 to .81. One item was in the “poor” range, one item was in the “fair” range, one was in the “good” range, and the remaining 3 were in the “excellent” range. For the CIRS total score used in subsequent analyses, ICC=.76.
Table 3.


<table>
<thead>
<tr>
<th>Measures</th>
<th>M</th>
<th>(SD)</th>
<th>ICC</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIRS, n=132</td>
<td>18.08</td>
<td>(6.00)</td>
<td>.76</td>
<td>.89</td>
</tr>
<tr>
<td>TPOCS-A, n=134</td>
<td>3.30</td>
<td>(.60)</td>
<td>.85</td>
<td>.82</td>
</tr>
<tr>
<td>Comp-CBT, n=110</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within-Session</td>
<td>4.56</td>
<td>(.70)</td>
<td>.81</td>
<td></td>
</tr>
<tr>
<td>Across-Session</td>
<td>4.09</td>
<td>(.79)</td>
<td>.76</td>
<td></td>
</tr>
<tr>
<td>Structure</td>
<td>4.74</td>
<td>(1.04)</td>
<td>.80</td>
<td></td>
</tr>
<tr>
<td>TPOCS-RS, n=135</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coping Cat</td>
<td>2.98</td>
<td>(1.04)</td>
<td>.93</td>
<td>.56</td>
</tr>
<tr>
<td>Cognitive</td>
<td>3.61</td>
<td>(1.42)</td>
<td>.92</td>
<td>.79</td>
</tr>
<tr>
<td>Behavioral</td>
<td>2.28</td>
<td>(.80)</td>
<td>.94</td>
<td>.71</td>
</tr>
<tr>
<td>Client-Centered</td>
<td>2.90</td>
<td>(.86)</td>
<td>.84</td>
<td>.74</td>
</tr>
</tbody>
</table>

Note. Interrater reliability based on ICC (2,2), two-way random effects model for the average of two coders. Cronbach’s α based on items scores averaged across both coders. COMP-CBT items were used instead of subscales. Therefore, alpha was not calculated.

Study 1b. Variance component analysis. Table 4 contains the results of the variance components analysis for each of the items in the COMP-CF. For all but 1 item (facilitated treatment expectancies), the largest proportion of non-residual variance was attributed to Therapist. The item continuity of treatment yielded very small variance components across all predictors (.00 to .04). The remaining proportions ranged from .15-.46 for therapists, suggesting
that between-therapists difference accounted for 15-46% of variance in COMP-CF scores. Between-client differences accounted for additional, yet small proportion of the variance for 17 items. Between-rater differences accounted for small proportions of variance for 13 items. Session number did not account for any variance for any of the items. However, given the low number of tapes available for each session, these numbers should be considered tentative.

Table 4.

Variance Components for COMP-CF ratings

<table>
<thead>
<tr>
<th>Scale and Items</th>
<th>Therapist</th>
<th>Client</th>
<th>Session</th>
<th>Rater</th>
<th>Residual</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Alliance building</td>
<td>0.24</td>
<td>0.11</td>
<td>0.00</td>
<td>0.05</td>
<td>0.60**</td>
</tr>
<tr>
<td>Alliance building</td>
<td>0.20</td>
<td>0.17</td>
<td>0.00</td>
<td>0.03</td>
<td>0.60**</td>
</tr>
<tr>
<td>Conveys understanding</td>
<td>0.20</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.80**</td>
</tr>
<tr>
<td>Positive regard</td>
<td>0.36*</td>
<td>0.04</td>
<td>0.00</td>
<td>0.04</td>
<td>0.55**</td>
</tr>
<tr>
<td>Elicits perspective</td>
<td>0.15</td>
<td>0.04</td>
<td>0.00</td>
<td>0.13</td>
<td>0.67**</td>
</tr>
<tr>
<td>Fosters collaboration</td>
<td>0.20*</td>
<td>0.16*</td>
<td>0.00</td>
<td>0.02</td>
<td>0.62**</td>
</tr>
<tr>
<td>II. Positive expectancies</td>
<td>0.30**</td>
<td>0.02</td>
<td>0.00</td>
<td>0.01</td>
<td>0.67**</td>
</tr>
<tr>
<td>Positive expectancies</td>
<td>0.28*</td>
<td>0.03</td>
<td>0.00</td>
<td>0.01</td>
<td>0.68**</td>
</tr>
<tr>
<td>Treatment expectancies</td>
<td>0.10</td>
<td>0.14</td>
<td>0.00</td>
<td>0.00</td>
<td>0.77*</td>
</tr>
<tr>
<td>Therapist credibility</td>
<td>0.15*</td>
<td>0.00</td>
<td>0.00</td>
<td>0.08</td>
<td>0.77**</td>
</tr>
<tr>
<td>Client self-efficacy</td>
<td>0.36*</td>
<td>0.00</td>
<td>0.00*</td>
<td>0.00</td>
<td>0.63**</td>
</tr>
<tr>
<td>III. Focusing treatment</td>
<td>0.40**</td>
<td>0.01</td>
<td>0.00</td>
<td>0.01</td>
<td>0.58**</td>
</tr>
<tr>
<td>Focuses treatment</td>
<td>0.41**</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.59**</td>
</tr>
<tr>
<td>Structure and Pace</td>
<td>0.37**</td>
<td>0.00</td>
<td>0.00</td>
<td>0.06</td>
<td>0.57**</td>
</tr>
</tbody>
</table>
Table 4 continued.

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuity of Treatment</td>
<td>0.04</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.96**</td>
</tr>
<tr>
<td>Focuses on Key Themes</td>
<td>0.46**</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.54**</td>
</tr>
<tr>
<td>IV. Instigating change</td>
<td>0.39**</td>
<td>0.05</td>
<td>0.00</td>
<td>0.00</td>
<td>0.57**</td>
</tr>
<tr>
<td>Instigating change</td>
<td>0.39**</td>
<td>0.03</td>
<td>0.00</td>
<td>0.00</td>
<td>0.58**</td>
</tr>
<tr>
<td>Uses change strategies</td>
<td>0.35**</td>
<td>0.04</td>
<td>0.00</td>
<td>0.00</td>
<td>0.62**</td>
</tr>
<tr>
<td>Client’s participation</td>
<td>0.33**</td>
<td>0.05</td>
<td>0.00</td>
<td>0.02</td>
<td>0.60**</td>
</tr>
<tr>
<td>V. Responsiveness</td>
<td>0.25*</td>
<td>0.08</td>
<td>0.00</td>
<td>0.02</td>
<td>0.65**</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>0.32*</td>
<td>0.09</td>
<td>0.00</td>
<td>0.00</td>
<td>0.59**</td>
</tr>
<tr>
<td>Foster’s motivation</td>
<td>0.30*</td>
<td>0.07</td>
<td>0.00</td>
<td>0.00</td>
<td>0.63**</td>
</tr>
<tr>
<td>Flexibility</td>
<td>0.28*</td>
<td>0.08</td>
<td>0.00</td>
<td>0.03</td>
<td>0.61**</td>
</tr>
</tbody>
</table>

Note: Variance component estimates represent the portion of variance that is attributed to each source of variance.

$n=142$.

*p=<.05, **p=<.01.

**Study 1c. Stability of COMP-CF.** The trajectory of COMP-CF scores over time was examined using MIXED procedure in SPSS, with REML estimation and an unstructured covariance structure. It is important to note that the sample size is relatively small for multilevel models, and these analyses should be considered preliminary. The small sample size will have little impact on the test of fixed effects, but the tests of random slope variances will be underpowered (Snijders, 2005). A COMP-CF total score was created based on the high correlations between scales and high internal consistency (α=.92). This score was created by averaging item-scores within each scale for each coder to create a subscale score for each coder; the coder subscales were averaged to create an average subscale score; average subscale scores
were then averaged to create a COMP-CF total score that represented the average of both coders. A random sample of therapist cases were selected for growth plots of COMP-CF total scores (Figure 2). These plots suggest that therapists tend to exhibit little variability in COMP-CF scores across time. When variability does exist (e.g. clients 30142 and 41235), the variability does not appear to follow a consistent linear or curvilinear pattern.

![Figure 2. Growth plots of COMP-CF total scores for random sample of cases.](image)

Next, an unconditional means model was fit to the data using SPSS MIXED procedure with REML estimation and using an identity matrix covariance structure (due to estimation of a single level) to determine if significant between-therapist variability in COMP-CF scores exists,
collapsing across session (Table 5). This level-1 fixed effect was significant, $F(1, 26.259)=1140.362, p<.001$. The estimate of the grand mean COMP-CF score, collapsing across client and time was $M=4.423, SE=.131, t(26.259)=33.769, p<.001$. The model estimates that the average therapist, collapsing across session, had an average COMP-CF total score of 4.423.

The random effects are estimated via variance components. The level-1 within-therapist variance component was significant, $\sigma^2 = .371, SD = .049, Z = 7.571, p < .001$, suggesting that there is significant unexplained within-therapist variance. The level-2 between-therapist variance component was also significant $\sigma^2 = .373, SE = .130, Z = 2.87, p = .004$, suggesting that there may be sufficient between-person variance for further estimation. According to the variance components, approximately 50% of variance in COMP-CF scores is attributable to within-therapist variance over time, and 50% of the variance is attributable to between-therapist variance.

Table 5. 

*Results of Unconditional Models of Change for COMP-CF.*

<table>
<thead>
<tr>
<th></th>
<th>Unconditional Means Model</th>
<th>Unconditional Growth Model</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fixed Effects</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial Status</td>
<td>Intercept</td>
<td>4.42**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.130)</td>
</tr>
<tr>
<td>Rate of Change</td>
<td></td>
<td>.019</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.013)</td>
</tr>
<tr>
<td><strong>Variance Components</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 1</td>
<td>Within-Person</td>
<td>.371**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>.343**</td>
</tr>
</tbody>
</table>
Table 5 continued.

<table>
<thead>
<tr>
<th>Level 2</th>
<th>In initial status</th>
<th>.372**</th>
<th>.370</th>
</tr>
</thead>
<tbody>
<tr>
<td>In rate of change</td>
<td></td>
<td>.001</td>
<td></td>
</tr>
<tr>
<td>Covariance</td>
<td></td>
<td>-.006</td>
<td></td>
</tr>
<tr>
<td>Pseudo R²</td>
<td></td>
<td>.09</td>
<td></td>
</tr>
<tr>
<td>-2Log</td>
<td>331.07</td>
<td>335.07</td>
<td></td>
</tr>
<tr>
<td>Likelihood</td>
<td>335.07</td>
<td>343.07</td>
<td></td>
</tr>
<tr>
<td>AIC</td>
<td>340.97</td>
<td>354.83</td>
<td></td>
</tr>
<tr>
<td>BIC</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note. AIC= Akaike’s Information Criteria; BIC= Bayesian Information Criteria.*

**p<.001

The next step was to fit an unconditional growth model that includes the effect of time (e.g. session number). REML estimation was used to fit the data with an unstructured covariance structure (UN). The UN has the least assumptions regarding normality and equality of variances. A compound symmetry (CS) and a first-order autoregressive (AR1) were also examined and AIC values were compared for best fit. For the UN model, AIC=343.07. The CS and AR1 models resulted in nonpositive definite Hessian matrices and higher AIC values, AIC=352.50 for both CS and AR1. Therefore the UN resulted in better model fit. As fit can depend on normality of the data, the best fitting covariance structure should be reexamined on future samples.

Compared to the means model the level-1 fixed effect remained significant, $F(1, 41.256)=864.632, p<.001$. The average initial COMP-CF score, taking changes across time into
effect, was $M=4.29$, $SE=.145$, $t(41.256)=29.405$, $p<.001$, and the average rate of change was approximately .02 points per session on average, $M=.019$, $SD=.013$, $t(37.792)=.149$, $p=.142$.

The random effects variance components were changed little by the addition of the growth model. The remaining level-1 within-therapist residual variance was reduced slightly, but was still significant, $\sigma^2=.343$, $SE=.064$, $Z=5.371$, $p<.001$, suggesting that there is still significant unexplained within-therapist variance not accounted for in the model. The level-2 between therapist variance component was non-significant $\sigma^2=.370$, $SE=.206$, $Z=1.794$, $p=.073$, however the variance component estimate remained quite large suggesting that there is still significant between-therapist variance in initial COMP-CF scores that remains unexplained. Furthermore, the variance component of the random slope was not significant, and the variance component was very small ($\sigma^2=.001$, $SE=.001$, $Z=.727$, $p=.468$, which suggests that there is not significant between-person variance in rate of change. In all, these results suggest that there are large differences between therapists in COMP-CF scores, collapsing across time. There are also sizable variances in scores within therapist; however these differences are not explained by linear change. Furthermore, there is not meaningful difference between therapists with regards to rate of change across treatment.

The *Pseudo* $R^2$ is an estimate of proportional reduction in level-1 variance components and serves as another indicator of incremental improvement from the means model to the growth model. According to the *Pseudo* $R^2$, only 9% of the within-person variation in COMP-CF scores may be accounted for by linear time. Information criteria provide another estimate of model fit relative to other models. The $-2$Restricted Log Likelihood Deviance, Akaike’s Information Criteria (AIC), and Bayesian Information Criteria (BIC) provide an estimate of the information that is left out of the model. These criteria favor parsimony and penalize overfitting the model.
with additional parameters, particularly BIC. Therefore, models with the lesser values for the information criteria are preferred. For this sample, the unconditional means model is preferred, as all three values are smaller compared to the growth model. This acts as a further indication that therapists in this sample did not exhibit significant linear change in COMP-CF throughout treatment. There remains significant within and between therapist variance that may be explained by fitting predictors to the model once the full sample is collected.

**Study 1d. Internal consistency.** Cronbach’s alpha was calculated for each scale of the COMP-CF as a measure of internal consistency and compared to the correlations between scales to determine if the relationship between individual items on each scale was greater than the relationship between scales (Table 6). Cronbach’s alpha ranged from .86 to .97 for each subscale. Mean COMP-CF subscale scores were entered as variables to calculate the internal consistency of a total COMP-CF score. The alpha for the total COMP-CF was .92.

Table 6.

<table>
<thead>
<tr>
<th>COMP-CF Internal Consistency and Correlations Among Subscales</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>1. Alliance</td>
</tr>
<tr>
<td>2. Expectancies</td>
</tr>
<tr>
<td>3. Focusing</td>
</tr>
<tr>
<td>4. Change</td>
</tr>
<tr>
<td>5. Responsiveness</td>
</tr>
</tbody>
</table>

*Note. Numbers in bold represent the internal consistency (α) of the COMP-CF subscales.

**p<.01.
Cronbach’s alpha was calculated for all measures used in subsequent analyses. The TPOCS-A yielded an alpha of .82. The alphas for TPOCS-RS subscales were .56 (Coping Cat), .79 (Cognitive), .71 (Behavioral), and .74 (Client Centered). The alpha for the Coping Cat scale was lower than the other scales because it combines items from the cognitive and behavioral scales to assess adherence to the specific strategies in the Coping Cat manual, and thus contains items that reflect two dimensions. The CIRS $\alpha = .89$.

The subscales for COMP-CBT do not represent items with a shared construct, but represent the various strategies and delivery mechanisms associated with CBT. Furthermore, individual items were used in the analyses rather than subscales; thus internal consistency of the scale was not deemed relevant to these scales and was not calculated.

**Study 2: Validity Studies**

**Study 2a. Construct validity.** Pearson correlations between COMP-CF and theoretically similar scales (CIRS, TPOCS-A and COMP-CBT; Table 7.) were used as an assessment of the construct validity of the COMP-CF. I predicted that scores on the COMP-CF scales would be positively correlated with the CIRS, a measure of child involvement. This hypothesis was only partially supported. The correlation between COMP-CF Alliance and CIRS was significant ($r= .327$, $p<.001$). This indicates that therapists who are more competent at building alliance are more likely to have clients who participate actively in treatment. The correlations between the remaining COMP-CF and CIRS were not significant.

Moderate correlations between COMP-CF and COMP-CBT, representing a shared “competence” construct, were expected as a result of the sample of CBT therapists. COMP-CBT items “within session CBT focus,” “across session CBT focus,” and “structure/pacing” were examined as these items are expected to occur every session. These correlations were expected to
be strongest with COMP-CF Focusing Treatment and Instigating Change scales. All correlations between the COMP-CBT and COMP-CF items were significant. The highest correlations are noted between COMP-CF Instigating Change and all three COMP-CBT items \((r=.633, .605, \text{ and } .622, \text{ respectively, } p<.001)\), and between COMP-CF Focusing Treatment and COMP-CBT Standard and Model scales \((r=.550, .523, \text{ and } .537, \text{ respectively, } p<.001)\), whereas correlations between the remaining subscales ranged from \(r=.205\) to \(.448, p<.001\). These correlation coefficients suggest that therapists who were rated as being more competent at implementing specific CBT interventions were also rated as being more competent at focusing treatment and instigating change.

Table 7.

*Pearson Correlations Among COMP-CF Scales and Measures of Construct Validity*

<table>
<thead>
<tr>
<th>Measures</th>
<th>Alliance</th>
<th>Positive</th>
<th>Focus</th>
<th>Change</th>
<th>Respond</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIRS, (n=132)</td>
<td>.327**</td>
<td>.123</td>
<td>.042</td>
<td>.162</td>
<td>.131</td>
</tr>
<tr>
<td>TPOCS-A, (n=134)</td>
<td>.437**</td>
<td>.350**</td>
<td>.279**</td>
<td>.425**</td>
<td>.294**</td>
</tr>
<tr>
<td>Comp-CBT, (n=110)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within-Session</td>
<td>.206*</td>
<td>.418**</td>
<td>.550**</td>
<td>.633**</td>
<td>.365**</td>
</tr>
<tr>
<td>Across-Session</td>
<td>.264**</td>
<td>.448**</td>
<td>.523**</td>
<td>.605**</td>
<td>.350**</td>
</tr>
<tr>
<td>Structure</td>
<td>.205*</td>
<td>.425**</td>
<td>.537**</td>
<td>.622**</td>
<td>.359**</td>
</tr>
</tbody>
</table>

Note. *\(p<.05\). **\(p<.01\).
Study 2b. Discriminant validity. Pearson correlations were also examined between COMP-CF and measures that were expected to show less theoretical overlap (TPOCS-RS). These measures were designed to represent dosage of specific therapeutic interventions, rather than quality of implementations. In general, therapists who were rated as using a high frequency of interventions commonly specified in CBT manuals were also rated as competent in the common factors. Similarly, correlations between the TPOCS-RS Cognitive and Behavioral subscales were positive and significant. Correlations between TPOCS-RS Client-Centered and COMP-CF were positive and significant (correlations ranging from .249 to .361, *p*<.001), with the exception of COMP-CF Focusing Treatment.

Table 8.

_Pearson Correlations Among COMP-CF Scales and Measures of Discriminant Validity_

<table>
<thead>
<tr>
<th>TPOCS-RS</th>
<th>Alliance</th>
<th>Positive</th>
<th>Focus</th>
<th>Change</th>
<th>Respond</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coping Cat</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.357**</td>
<td>.425**</td>
<td>.539**</td>
<td>.644**</td>
<td>.414**</td>
</tr>
<tr>
<td></td>
<td>(.000)</td>
<td>(.000)</td>
<td>(.000)</td>
<td>(.000)</td>
<td>(.000)</td>
</tr>
<tr>
<td>Cognitive</td>
<td>.361**</td>
<td>.346**</td>
<td>.464**</td>
<td>.538**</td>
<td>.358**</td>
</tr>
<tr>
<td></td>
<td>(.000)</td>
<td>(.000)</td>
<td>(.000)</td>
<td>(.000)</td>
<td>(.000)</td>
</tr>
<tr>
<td>Behavioral</td>
<td>.275**</td>
<td>.431**</td>
<td>.477**</td>
<td>.606**</td>
<td>.370**</td>
</tr>
<tr>
<td></td>
<td>(.001)</td>
<td>(.000)</td>
<td>(.000)</td>
<td>(.000)</td>
<td>(.000)</td>
</tr>
<tr>
<td>Client-Centered</td>
<td>.361**</td>
<td>.319**</td>
<td>.140</td>
<td>.249**</td>
<td>.328**</td>
</tr>
<tr>
<td></td>
<td>(.000)</td>
<td>(.000)</td>
<td>(.105)</td>
<td>(.004)</td>
<td>(.000)</td>
</tr>
</tbody>
</table>

Note. *n*=135. *p*<.05, **p*<.01.
Discussion

The primary aims of this study were to 1) develop a measure of common-factor competence of therapists conducting therapy with youths, based on theories of therapeutic change, existing measures of competence, and collaboration with therapists and training supervisors, and 2) examine the initial reliability and validity of the instrument to inform the next steps of the measure development process. With an eye toward these goals, four reliability and two validity studies were conducted as first steps. Following initial item development and face validation, the measure demonstrated good reliability and internal consistency. Significant between-therapist and between-client differences in competence were noted that warrant further exploration. The COMP-CF also demonstrated initial validity by relating in expected ways to other observer-rater measures of therapeutic processes such as alliance, CBT-specific competence, and adherence.

The first series of studies examined the reliability and consistency of the COMP-CF scores across therapists, coders, and time (Studies 2a through 2d), providing initial estimates of reliability and basic structure of this novel observational measure. These tests provide information about how precisely COMP-CF can be measured by estimating the amount of “true score” variance versus “error”. The interrater reliability of the COMP-CF was examined via intraclass correlations (ICC) to determine the extent to which trained graduate students can independently view a therapy session and provide similar scores. The reliability estimates were based on a two-way random effects model that prioritizes consistency between coders (e.g. relative ranking of scores) over absolute agreement and provides a more liberal estimate of reliability compared to absolute agreement models. This model assumes that researchers will use
the mean of coders’ ratings in subsequent analyses rather than scores from one coder. In general, the reliability estimates between coders of the COMP-CF were in the good to excellent range. The same was true for the reliability estimates of the other measures used in the study. It appears that graduate students can be trained to provide reliable estimates of operationalized therapeutic processes. The interrater reliabilities obtained in this study were higher than competence measures in other studies. For example, reliability coefficients for the competence measure used by Hogue et al. (2008) ranged from .01 to .63. In another study, the Adherence-Competence Scale for IDC for Cocaine Dependence, a 43-item measure, was used to assess treatment-specific adherence and competence (Barber, Gallop, Crits-Christoph, Frank, et al., 2006). Although ICCs for the overall adherence (.79) and competence (.80) scales were good, the authors reported that only items with ICC above 0.6 were selected for the competence score. Unfortunately, the number of items eliminated due to low reliability was not reported, and so it cannot be ascertained how comparable their findings are to these with the COMP-CF. Overall, though, the results are promising and suggest the continued development of the COMP-CF is warranted.

The variance component analysis extended the interrater reliability analysis by estimating the portion of variance in COMP-CF scores that are due to coders as well as therapists, clients, and session. To the extent that the COMP-CF provides a reliable assessment of therapist skill, we should expect to see scores vary primarily as a function of therapist, and to some extent client. To wit, if the COMP-CF assesses stable therapist skill, the majority of the variance in scores should be observed at the therapist level, whereas if therapist competence varies from client to client, greater variance will be observed at the client level. Variation due to coder should remain minimal if the COMP-CF is a reliable measure. For this analysis, most of the non-error variance was at the therapist level, with a small amount of variance attributed to the client level. Nominal
variance was associated with session or coder. This suggests that scores on the COMP-CF are reliably measured and appear to vary as a function of differences between therapist, and between clients within a therapist, rather than between coders. Thus, results from this study suggest that competence, as measured by the COMP-CF, may reflect stable therapist characteristics as well as those that vary from client to client.

It should be noted that with only two coders it is difficult to draw conclusive inferences about the coder effect. These estimates should be reevaluated once the full sample has been coded to test the stability of the model as several of the VCA’s resulted in non-positive definite matrices. Non-positive definite matrices can result when there is too little variance to model. The low variance in coder and session effect can be due to the true absence of an effect, or due to the small sample size.

The variance components for the therapist level were higher than those observed by Hogue, Dauber, et al. (2008), in which most variance was observed at the client level. One possible explanation for the difference in findings is that their sample included youth with substance youth disorders with a high rate of externalizing disorders (80%). This population may be more challenging to treat than youth with primary anxiety disorders and thus may result in greater variability in therapist competence at the client level. However, Barber et al. 2006 found that nearly equivalent variance in competence scores were found at the therapist and session levels (.30 and .28, respectively) with an adult cocaine treatment sample. Future research should examine the variance components of clients with internalizing versus externalizing disorders to address this question.

The results of the unconditional longitudinal mixed models extend the variance
component analysis by further exploring the stability of therapist competence across clients and within client. These analyses provide information akin to test-retest reliability by examining how reliable a score is for a given therapist from one client to another, or with a given client from one session to another. The results of the unconditional means model suggest that there is significant between-therapist difference in competence. This suggests that therapists following a treatment manual for CBT for child anxiety appear to differ from one another in common-factor competence, as measured by the COMP-CF. This finding provides further justification for continued research to determine what factors predict these between therapist differences (e.g. years of experience, professional background, etc).

Significant within-therapist differences were also found, suggesting that therapist competence varies with a therapist from client to client. These results are consistent with the VCA and suggest that approximately half of the non-error variance is attributed to differences between therapists, and half is due to differences from client to client in total COMP-CF scores. This suggests that therapists do differ from one another in overall competence, but different clients also may call upon different sets of skills from a therapist and may result in variation within a therapist across clients. These findings are consistent with Shaw’s finding that therapists trained and certified to implement cognitive therapy for a controlled treatment trial exhibited significant differences in cognitive therapy and general competence, as well as significant differences within therapist from client to client (Shaw et al., 1999).

The unconditional growth mixed model examined the pattern of change across time to determine if the variability in therapist scores could be described in terms of linear change. In other words, do therapists show significant difference from session to session, and if so, do COMP-CF scores show a steady linear rise or fall? The results suggest that there are significant
differences in therapist performance from one session to the next, but these changes are not linear in nature (e.g. therapists do not appear to gradually improve or decline throughout treatment). There were too few recordings per session per therapist in this sample for further analyses; however, visual inspection of growth plots shows an inconsistent irregular pattern. Future studies that include greater number of sessions per client, and clients per therapist, are needed to determine what might predict session-to-session differences.

The VCA and mixed model analyses may contribute to the debate about therapist-level versus client-level effects in outcome that have emerged within the last decade (Crits-Cristoph & Gallop, 2006; Soldz, 2006) by examining were variability exists and how to account for differences between therapists and difference within therapists. Studies that examined differential outcomes between therapists in controlled studies have been mixed and methodological and reporting practices have limited the ability to estimate how large the differences are between therapists (Crits-Cristoph & Gallop, 2006). In a special section of the journal *Psychotherapy Research* (Hill, 2006), researchers set themselves to the task of determining whether “therapist effects” were more or less important than “treatment effects” (e.g. when comparing one treatment modality to another), or “client effects” by using multilevel modeling and looking for significant between-therapist differences in outcome compared to between-client difference. One study found significant therapist-level effects (Kim, Wampold, & Bolt, 2006) while the other study did not find significant therapist-level effects (Elkin et al., 2006) using the same dataset. Subsequent papers in the special section highlighted how different data handling and analytic strategies accounted for difference (Crits-Cristoph & Gallop, 2006; Soldz, 2006; Wampold & Bolt, 2006), but no resolution of which represented the “truer” model was achieved. However, both studies found that a vast majority of variance in outcome was
associated with “client-effects” rather than “therapist effect.” Does this mean that differences between therapists do not matter?

The small therapist effects, as analyzed in the special section, do not necessarily mean that therapist behaviors are inconsequential. Nor do they mean that effects at the client level are due solely to client characteristics. Instead, they speak to the effect of level of aggregation. What these analyses may suggest is that aggregation at the therapist level may result in loss of information about important therapist effects such as competence and/or adherence, particularly when small sample sizes result in low power to detect differences. Although they examine the effects of broad unspecified therapist differences on outcome and do not speak to the effect of change process variables such as adherence or competence, the findings may be relevant to the present study of therapist process variables. Because a therapist’s treatment practices (e.g. adherence or competence) may vary from client to client, as demonstrated by the unconditional models in the present study and findings from previous studies (e.g. Shaw et al., 1999), significant variability in therapist behaviors that potentially affect outcome may be witnessed at the client level as opposed to the therapist level. That is, if it is common for a therapist’s quality of implementation to differ for two clients, we may expect to see differences in the clients’ outcomes. These differences may be due, in part, to the therapist, but the effect will be witnessed at the client-level. Rather than trying to characterize treatment integrity variables, such as adherence and competence, as stable therapist-level effects, the results of the present study suggest that it may be better conceptualize treatment integrity as a product of the therapist-client interaction and look instead at “therapist effects” at both the therapist-level and the client-level. Measures of therapist-level and client-level variables are needed to determine what factors account for these differences and interactions. The use of measures such as the COMP-CF, in
combination with other therapist and client process measures, may help address these questions.

Next, I sought to examine the internal structure of the COMP-CF to determine how reliable the scores in each subscale are relative to other items in the same subscale. These data provide an initial estimate of how well the items measure the same underlying construct-competence. This was accomplished via Cronbach’s alpha estimate of the internal consistency of the COMP-CF subscales. Alphas were high for each subscale (ranging from .86 to .97). Values this high suggest some level of redundancy of items (Watson & Clark, 2003). Future studies would need to examine whether or not coding all 19 items (vs. the five level-1 items) was necessary. The Cronbach’s alpha was also calculated for a COMP-CF total score in which all scales were averaged together and resulted in \( \alpha = .92 \). This suggests that a large portion of variance can be attributed to a shared underlying construct and that using a total COMP-CF score in analyses may be appropriate in some cases. This method approach to understanding the scale structure is less ideal than a factor analytic approach. Factor analysis requires significantly larger sample sizes than available for this study. Once the full sample is collected, exploratory factor analysis should be used to examine the underlying structure. Principle components analysis may also be considered to identify those items that account for the most variance in total COMP-CF scores, and determine is a shortened version of the scale would provide greater efficiency.

The high subscale correlations and coefficient alpha for the COMP-CF subscales merit further exploration as multiple explanations are possible. One possible explanation of the high internal consistency and inter-subscale correlations of the overall COMP-CF is the homogenous nature of the sample. All therapists were trained to implement a manualized treatment with the intention of reducing variance in performance. Indeed, mean scores for the COMP-CF items were generally in the “adequate” to “good” range. Similar explanations have been suggested in
other studies (Crits-Cristoph & Gallop, 2006). Another possibility is a halo-effect in which coder’s perception of the therapist’s competence in one area carries over to other items (Hogue et al., 1996). This could represent a problem with the operationalization of the items and/or coder training. A third possible reason is that therapists who are competent in one area tend to also be competent in other areas. It may be unusual to find a therapist who is highly competent in relationship aspects, but dreadful in technical aspects or vice versa. Having interpersonal effectiveness is likely a requisite skill for therapy, and one in which most therapists would be expected to demonstrate at least marginal competence. Therefore, overlap between these constructs is not surprising.

Another explanation for the high correlations among COMP-CF subscales and the high alpha for the COMP-CF total score is that an alternative factor structure for the COMP-CF may be a better fit for the data than the five-factor structure proposed in this study. Examination of the correlation patterns the common-factor competence subscales in relation to other measures of therapeutic processes (described in more detail below) may provide clues about the constructs underlying the COMP-CF. The differential patterns of correlations between COMP-CF Focusing and Change scales and COMP-CF Alliance and Responsiveness scales, in which when correlations with Focusing and Change are higher, Alliance and Responsiveness tend to be lower (and vice versa), suggests that the underlying structure of the COMP-CF may be better represented by a relationship factor, in which Alliance and Responsiveness items are combined, and a strategies factor, in which Focusing and Instigating Change are combined. This interpretation of the data reflects the view held by many in the field that there are separate relationship and strategy factors, which may have differential affects on outcome (Norcross, 2001, 2002). It is important to note, however, that these do not appear to represent distinct
constructs as evidenced by the high correlations between all COMP-CF scales (ranging from .62 to .86), and high Cronbach’s alpha for the total score. The relationship of CBT-competence and adherence with common-factors positive expectancies generally bridged the relationship between the relationship-based scales and the strategy-based scales. This is consistent with research that has suggested that treatment expectancies have direct effects on outcome, as well as indirect effects though alliance and treatment engagement (Connolly Gibons et al., 2003; Constantino et al, 2004; Meyer et al. 2002). A factor analysis may reveal a 2- or 3 factor model comprised of a relationship factor, and strategy factor, and potentially an expectancy factor, all subsumed under a higher order general competence factor. Once the full sample has been coded, a series of factor analyses can address this question.

Together, the reliability analyses conducted for this study suggest that competence can be reliably measured by graduate students following extensive training and guided by a detailed coding manual. Furthermore, the scores of the COMP-CF demonstrate reliability across therapists and within therapist, although significant variability in at the therapist level and client level warrant continued research into predictors of competence at each level. These analyses provided an estimate of the precision with which the COMP-CF can be scored. The accuracy of the COMP-CF as a measure of common-factor competence was explored through a series of validity studies.

I conducted two validity studies to determine to what extent the COMP-CF measures common-factor competence. In the absence of a pre-existing well-validated measure if youth common-factor competence, the process of gradually building construct validation is necessary (Cronbach & Meehl, 1955). Construct validation builds support for validity examining the pattern of correlations with measures that are suspected of having some degree of theoretical
overlap. This was achieved by (a) examining the overlap of the COMP-CF scales with observer-rater measures of therapeutic alliance, CBT-specific competence, and child involvement, and (b) examining the discriminant validity of the COMP-CF by contrasting scores on the COMP-CF scales with scores of CBT adherence. All common-factor competence scores were positively associated with ratings of the quality of the therapeutic relationship. This is consistent with previous studies that have found positive relationships between alliance and competence (Barber et al., 2006; Hogue, Henderson, et al., 2008; Shaw et al., 1999). The relationship between observed alliance and the alliance-building competence scale was higher than the relationship with the other scales, further demonstrating the construct validity of the scales.

The overall relationship between COMP-CF and a measure of CBT-specific competence was positive. This is consistent with other studies that have included common-factor competence items in measures of model-specific competence (Carroll et al., 2000; Hogue, Dauber, et al., 2008; Hogue, Henderson et al., 2008; Shaw et al., 1999). Therapists who were rated as being competent in maintaining a CBT focus and structure (via COMP-CBT), were also rated as being more competent in maintaining overall treatment focus and using change strategies (via COMP-CF), and to a lesser extent as being competent in the relational aspects of treatment (e.g. Alliance, Positive Expectancies, and Responsiveness).

The relationship between common-factor therapist competencies in alliance building was positively associated with observer ratings of child involvement as expected. Previous studies have shown a strong relationship between pre-treatment outcome expectancies and therapeutic alliance in CBT, supportive-expressive therapy, and interpersonal therapy (Connolly Gibons et al., 2003; Constantino et al, 2004), and the present study indicates that therapists efforts to bolster expectancies in treatment is also related to alliance. An unexpected finding, however,
was the absence of a relationship between child involvement and the remaining competency scales. Research has suggested that positive treatment expectancies are related to outcome by increasing client involvement in treatment (Meyer et al., 2002). Ratings of child involvement were generally high for this sample, which may have attenuated the relationship between expectancies and involvement.

The relationship between common-factor competence and CBT-adherence was expected to be smaller than the relationship between common-factor competence and CBT-competence. Nevertheless, a similar pattern of correlations between COMP-CF and a measure of CBT adherence were noted. This suggests that therapists who used more CBT-related interventions were more likely to be rated as being more competent in treatment interventions, but only moderately competent in building alliance, expectancies, and responsiveness. These findings are consistent, however, with previous studies in which moderate positive correlations between competence and adherence have been found (Barber et al., 2006; Carroll et al., 2000; Hogue, Dauber, et al., 2008; Hogue, Henderson et al., 2008). Referring again to treatment integrity model presented in Figure 1 (p. 5), some degree of overlap between adherence (e.g. in this sample, use of CBT strategies), model-specific competence (e.g. CBT competence), and common-factor competence is expected. What is not known is how much of this overlap is due to meaningful overlap of the latent constructs versus artifacts of the measurement process- a question that deserves further consideration.

The moderately high correlations between the two competence measures and the adherence measure may suggest that coders are tapping into a shared implicit heuristic that is not accounted for in the respective manuals. Previous studies have found high correlations between competence and adherence when the same coders rate both constructs simultaneously (e.g.
Barber, Mercer, Karkauer, & Calvo, 1996; Carroll et al., 2000; Hogue, Dauber, et al., 2008; Hogue, Henderson et al., 2008), calling into question whether the constructs overlap, or whether coders' ratings were contaminated by carryover effects from the other measure. In this study, separate coders were used for each measure, but scores remained moderately correlated. This suggests that using the same coder was not the primary source of overlap of competence and alliance. Instead, overlap of the constructs may exist, although not so much to suggest redundancy.

One possible area of construct overlap is that coders for the adherence measures are instructed to consider frequency and extensiveness of implementation of the various therapeutic strategies when making their ratings, whereas coders of the competence measures (both COMP-CF and COMP-CBT) are instructed to consider skillfulness. It is possible that competence coders consider extensiveness when making judgments about quality. There may be an inherent association between the extensiveness of intervention and quality when moderate quality is present. Indeed, it is a challenge to judge the quality of a skill that occurred only briefly, or not at all, in a session, although it is certainly possible to identify an intervention that was extensively implemented poorly. The use of adherence rating based purely on frequency of interventions versus extensiveness may help tease apart the association between extensiveness and skillfulness.

Future research examining the decision-making process of coders may also be useful to determine if heuristics exist that are not covered in the respective manuals. For example, research examining the decision-making process of coders, such as a ‘think-aloud’ protocol (Ericsson & Simon, 1993), could be helpful in determining if a shared heuristic is present and how the manual can be specified more clearly to separate the constructs.

In contrast to the relatively high degree of overlap between competence at focusing
treatment and using change strategies and CBT-adherence, the magnitude of the relationship between the COMP-CF focusing treatment and instigating change scales and the degree to which therapists delivered client-centered strategies was much lower (e.g., \( r \)'s ranging from .14 to .25). On the other hand, therapists who engaged in more client-centered strategies tended to have higher scores on competence with regard to managing the alliance and being responsive to the client’s needs. Although one would expect such a relationship given the focus of client-centered therapy on the relationship (Bohart & Tallman, 1999), it is somewhat surprising that a positive relationship of similar magnitude exists for therapists using CBT strategies as well. That is, therapists using CBT strategies were rated similarly in terms of their competence in managing alliance and responding to the client compared to therapists using client centered strategies.

However, these findings are consistent with research that has found equivalent levels of therapist alliance building behaviors in CBT and non-directive supportive therapies (Karver et al., 2008). Furthermore, the Coping Cat manual used by therapists in this study, in addition to providing highly structured session content that focuses on CBT-specific skills, includes relational elements and emphasized flexible implementation (Kendall et al., 1998). Therefore, both CBT change strategies and supportive relationship factors are targeted in the manual, and thus high levels of both change strategies and alliance would be expected.

In sum, the results of this study generally supported the reliability and validity of the COMP-CF. The COMP-CF demonstrated good interrater reliability, and found that a variance in competence scores was associated with between therapist differences, as well as between-client difference. The COMP-CF related to other measures of treatment process in ways consistent with previous findings in the literature. These studies represent progress in the development of a measure of common-factor competence, yet future studies are needed to refine the measure and
to examine the effect of common-factor competence in the overall treatment process.

**Future Directions**

The present study suggests several possible next steps. A first step will be to continue to refine the COMP-CF and its scoring strategy to ensure maximal reliability and validity. Further explication of the factor structure of the COMP-CF is needed. Given the small sample size available for this study, the structure was examined piecemeal via inter-subscale correlations and Cronbach’s alpha of the individual subscales and total score. However, this method is not as rigorous as factor analytic methods, though to use factor analysis one needs a larger sample (Clark & Watson, 1995). Understanding the factor structure of the COMP-CF can shed light on the ongoing debate between relationship and technique factors that some view as a false dichotomy (Castonguay & Holtforth, 2005; Chwalisz, 2001).

This study demonstrated the potential of common-factor competence as a measurable construct—one that can reliably measured and that demonstrates meaningful relationships with other measures of the therapeutic process. A much-needed next step of the COMP-CF validation process is to examine scores on the COMP-CF with therapists implementing various forms of treatment to determine if the measure is indeed pan-theoretical. Once the COMP-CF is validated across treatment modalities and populations (e.g. internalizing and externalizing), it can be employed in future studies examining the relative contribution of common factors versus theory-specific factors.

Of primary importance when developing a measure is to consider how the measure will be used in future studies to fill some hole in the theoretical and scientific landscape. Although a measure must be reliable and valid, it must meet a need in the field. With this question in mind, future research must consider what questions will be asked and how the scores will be used.
Relevant questions for common-factor therapist competence include: does common-factor therapist competence predict outcome? If so, how do we measure and account for the effects of common-factor competence in treatment studies? How do we train therapists to ensure that they reach some minimum level of competence?

The question that is of perhaps the most interest to researchers is whether a given variable predicts outcome. If not, there would be little point in spending further time and money on such labor-intensive research. This holds true for common-factor competence— if common-factor competence predicts a significant portion of outcome, than future research is warranted to develop ways of maximizing this benefit. If however, variance is better accounted for by model-specific competence, adherence, alliance, or some other process variable, research should be focused on understanding and maximizing those benefits.

Evidence so far has been mixed, although most studies have examined treatment-specific competence scales that may have included general competence scales or items akin to common-factor competence. Shaw and colleagues have found that the CTS, which included general competence items accounted for 14% of the variance in outcome scores for treatment for adult depression. Other studies have not supported a relationship between competence and outcome; however, these studies have been several significant limitations. Barber, et al. (2006) examined the effects of adherence and competence separately, as well as an interaction effect between competence and alliance for substance use treatment for adults. They found a curvilinear effect of adherence, such that moderate levels of adherence predicted better outcomes than low or high adherence. No relationship between competence and outcome was found, either alone or combined with adherence. This study was limited by the sampling of only one early-treatment session per case, and small sample size (e.g. 12 therapists and 95 clients).
These results were replicated and extended by Hogue and colleagues (2008) by examining the relationships between adherence, competence, and outcome for youth substance abuse treatment across multiple sessions. Three possibilities were offered as potential explanations for the unexpected finding that competence was unrelated to outcome: (a) inadequate measurement of competence (e.g. low interrater reliability), (b) curvilinear relationship between competence and outcome such that once a minimum level of competence is reached, additive effects are no longer apparent, and (c) studies have examined the relationship in samples of highly trained therapist in controlled trials thereby restricting the range of competency.

The current study has demonstrated that the COMP-CF may result in more reliable measurement of competency than obtained in previous studies. Furthermore, the larger treatment integrity measurement study (TIMS) for which the COMP-CF is a component will be able to address many limitations of previous studies. The available data represent therapists from a range of training backgrounds and experience with child-CBT for anxiety, leading to greater range in competency and ability to detect effects if they do exist. The available data also lends itself to sampling more sessions per case to increase dependability of scores and to detect the relationship of changes in integrity over time.

Moving forward with the assumption that there is variance in outcome associated with common-factor competence, several issues arise. One is how to account for this effect from a treatment integrity perspective when conducting a RCT that compares one treatment model to another. To demonstrate that any difference in outcome is attributable to the treatment, all other confounding variables, such as differences in competence, must be controlled either through manipulation (e.g. therapist selection or training) or statistical control (e.g. as a covariate).
require reliable and valid measurement of competence in all its components (e.g. common-factor and model-specific).

Along those lines, it can no longer be assumed that the use of treatment manuals in experimental conditions sufficiently standardizes treatment as studies have shown significant differences between therapists using the same treatment manual (Crits-Christoph & Mintz, 1991; Shaw et al., 1999). The longitudinal mixed models in this study suggests that even CBT-trained therapists in randomized outcome studies following a treatment manual demonstrate significant variability in competence, both between-therapist and from client to client.

Therefore, the next questions that arise are what predicts competence and how can competence be improved? Fitting therapist-level (e.g. years of experience, training background, etc.), client-level (e.g. diagnostic or interpersonal characteristics), and session-level (e.g. session content, phase of treatment) predictors to a model may help determine what factors are associated with competence.

Understanding what factors are associated with competence may provide insight into how to enhance competence. Furthermore, the COMP-CF may be useful in training therapists to attend to those variables that are responsible for change, such as focusing on common-factors while learning specific techniques to avoid the increase in negative behaviors and decrease in positive behaviors witnessed by some researchers (e.g. Henry et al., 1993, Miller et al., 2002).

The use of a measure of therapist competence to characterize a therapist’s performance presents additional questions that deserve further attention related to the sampling and aggregation of scores. When designing a study that examines a labor-intensive observational measure of the therapeutic process such as competence, the researcher must make critical design
decisions that may require weighing the cost of assessing competence at every session versus risk of lost information if only parts of the sessions or selected sessions are sampled. The researcher must also decide how to calculate scores to enter into the statistical model. Ideally, these decisions would be guided by research that systematically examined the effects of various aggregation and sampling decisions.

Difference in how data are sampled and aggregated can influence results and subsequent inferences (Chu, Colognori, Piacentini, Yang, & Xie, 2010). Indeed, Crits-Christoph, Connolly Gibbons, Hamilton, Ring-Kurtz, and Gallop (2011) found that in order to obtain a dependable therapist-level alliance score, one that characterizes a particular therapist’s alliance across clients, approximately 60 clients per therapist, with 4 sessions per client, are needed to achieve sufficient generalizability. Assessing alliance at the client-level, however, requires only 2 to 4 sessions to achieve adequate generalizability. The number of session sampled had an effect on the alliance-outcome relationship such that sampling one session resulted in 4.7% of outcome explained by alliance compared to 14.7% when seven sessions were averaged.

Examining the stability of scores over time can help determine how much within-therapist variance exists and how many samples are needed to characterize performance in competence. If large variance exists, sessions may need to be sampled frequently to obtain a representative sample. However, if variance appears to be small and relatively stable, fewer sessions may be adequate. Only by beginning at the lowest level of aggregation and systematically assessing the effect of increased aggregation can these questions be addressed. After all, downward aggregation is not possible if the data have not been collected.

**Strengths and Limitations**

The present study had many strengths: the use of several observer-rated process measures...
rated for the same recordings allowing for comparison of relationships between constructs; the use of separate coders for each measure to prevent contamination of constructs; the availability of therapists from an effectiveness and an efficacy trial resulting greater variability in process scores than has been observed in previous studies (e.g. Elkin, et al., 2006; Kim et al., 2006). Despite these strengths, there are some limitations to discuss when considering how best to integrate these findings into the literature. First, the fact that the study used recordings from only CBT treatment poses a limitation to the establishment of the COMP-CF measure as a measure of competency for the factors that are common to psychotherapy. Correlations between the COMP-CF Focusing and Instigating Change scales and the COMP-CBT items suggest both shared and unique variance between common-factor and CBT competence. However, it cannot be assumed that the variance would also be shared with measures of competence for other orientations. Samples with greater diversity of treatment approaches would be needed to determine if COMP-CF scales truly capture factors that are common across treatment approaches. In future studies it would be expected that similar patterns of correlations would be observed for non-CBT treatments, especially other time-limited therapies that emphasize active and focused treatment approaches (e.g. problem-solving therapy or time-limited psychodynamic therapy).

The small sample size at higher levels of the clustered data represented a major limitation to modeling effects at the coder level of the variance component analyses, and for distinguishing between therapist- and client-level effects of the longitudinal mixed models. The study will only use 2 coders per measure throughout the study, and therefore this effect will not be able to be modeled in the final analyses. The use of ICC estimates for interrater reliability was the primary method for determining the portion of variance in scores associated with coder-effect. As the sample was too small to fit predictors to the longitudinal mixed model, the purpose of this study

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was to generate hypotheses that may be tested once the full sample is collected. When the final sample is collected, the sample will include more sessions per client and clients per therapist that will allow the test of these hypotheses. Several subscales (e.g. Focusing Treatment, Instigating Change, and COMP-CF Total Score) were negatively skewed (e.g. high average competence scores), leading to biased results of the linear mixed models, which assume normality. This skewness of these scales is not entirely surprising given that this is a sample of therapists following a CBT-treatment manual, many of whom were highly trained therapists from an RCT in a laboratory clinic. The skewness can also result from a small sample. The next phase of analyses will include usual-care therapists. It is expected that including non-manualized treatment would shift the mean toward the center of the scale.

The limited availability of other validated measures of common-factor competency for youth psychotherapy, and processes measures in general, limits the ability to establish criterion-related validity. As such, the process of establishing construct validity by comparing the COMP-CF to measures with some degree of expected overlap and divergence was used to start to determine the theoretical boundaries of common-factor psychotherapy (Cronbach & Meehl, 1955).

The present study represents progress in the measurement of common-factor competence; however it merely scratches the surface of research that is needed to better understand how we can improve psychotherapeutic treatment. These studies depend on the development of reliable and valid measures of therapeutic processes such as common-factor therapist competence. A single study cannot answer the question of whether a measure is valid or not. Multiple studies are needed to build a body of evidence for validity using different methods, samples, and populations (Benson & Hagtvet, 1996). This study represents the first step in a larger measure
development study. Once validated, the COMP-CF may be used in future studies to close the gap in our knowledge of the therapeutic process by determining the portion of variance in youth treatment outcome that is attributable to common versus specific factors.
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Appendix A

Parent Survey

1. What qualities or characteristics do you think are important for all therapists to have?

2. What qualities or characteristics are important for therapists working with children/adolescents to have?

3. How would you know that your child’s therapist was really listening to you or your child?

4. How would you know that your child’s therapist really understood your, or your child’s, point of view?

5. How would you know therapist was collaborating, or working together with you and your child on the goals for therapy?

6. How would you know that your child's therapist was trying to do something about needs?

7. How would you know that your child's therapist was truly motivated to help your child in therapy?

8. How would you know that your child's therapist persevered when times got tough?

9. How would you know therapist believed therapy would be helpful?

10. What kinds of things would therapist do that would make him/her likable and good to work with?

11. What kinds of things would make you feel like you were in a safe and professional place where you, or your child, could talk about difficult things?

12. What kinds of things would a therapist do differently for children of different ages?

13. Below, please tell us any other important characteristics or behaviors of a good child/adolescent therapist? In other words, what other kinds of things would a therapist do that would make you feel like he/she was a good therapist?
Appendix B

The following pages contain the COMP-CF coding sheets.
CBT FOR YOUTH ANXIETY COMPETENCE FOR COMMON FACTORS SCALE (COMP-CF-YA)

<table>
<thead>
<tr>
<th>General information</th>
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<tbody>
<tr>
<td>1. Type of recording (circle one):</td>
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<tr>
<td>2. Total time of recording (minutes):</td>
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<tr>
<td>3. Number of people in recording:</td>
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<td>4. Who is on the recording:</td>
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<td></td>
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<td>5. Quality of recording:</td>
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<td>6. Time started coding:</td>
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<tr>
<td>7. Time finished coding:</td>
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<tr>
<td>8. Other coders with you (circle one):</td>
</tr>
<tr>
<td>9. Were there any problems with this file (circle one)?</td>
</tr>
<tr>
<td>10. If there was a problem with the file, what type of problem was it?</td>
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**Instructions:** Using the grid provided below, please indicate whether each specific item occurs during each five-minute time segment. If an item occurs during a time segment place a “+” to indicate above average rating, “X” to indicate average rating, or a “–” to indicate below average rating in the space provided in the grid corresponding to the correct item. After watching the ENTIRE recording, use the 1-7 scale to assign a Competence (Comp) rating for all items that are present in at least ONE (1) time period.

<table>
<thead>
<tr>
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<th>1</th>
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<th>4</th>
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<tr>
<td></td>
<td>Very Poor</td>
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<td>Acceptable</td>
<td>Adequate</td>
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<table>
<thead>
<tr>
<th>MICROANALYTIC ITEMS</th>
<th>Comp</th>
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<tbody>
<tr>
<td>1. Alliance Building</td>
<td></td>
</tr>
<tr>
<td>2. Conveys understanding/validates client’s experience</td>
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<tr>
<td>3. Demonstrates positive regard</td>
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<tr>
<td>4. Elicits client's perspective/experience</td>
<td></td>
</tr>
<tr>
<td>5. Fosters collaboration</td>
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<tr>
<td>6. <strong>Positive Expectancies</strong></td>
<td></td>
</tr>
<tr>
<td>7. Facilitates treatment expectancies</td>
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<tr>
<td>8. Facilitates therapist credibility</td>
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<tr>
<td>9. Facilitates client self-efficacy</td>
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<tr>
<td>10. <strong>Focusing Treatment</strong></td>
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<tr>
<td>11. Structure and Pace</td>
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<td>12. Continuity of treatment</td>
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<tr>
<td>13. Focuses on key themes in session</td>
<td></td>
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<tr>
<td>14. <strong>Instigating Change</strong></td>
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<tr>
<td>15. Uses change strategies effectively</td>
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<tr>
<td>16. Facilitates active client participation</td>
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<tr>
<td>17. <strong>Responsiveness</strong></td>
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<td>18. Fosters client’s motivation</td>
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<tr>
<td>19. Flexibility</td>
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</tbody>
</table>

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COMPETENCE SCALE

Instructions: Listed below are the COMP-CF items that will be scored for each session. Using the Likert scale provided below, please indicate how competent each common element is in the session you are viewing. Some scores will be based on a segment of the session or on one interaction within the session; other scores will be based on the session as a whole. Place the appropriate number from the Likert scale in the space provided next to each item.

<table>
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<td>Good</td>
<td>Very Good</td>
<td>Excellent</td>
</tr>
</tbody>
</table>

1. **ALLIANCE BUILDING/MAINTENANCE**: Ability to develop a therapeutic bond with the client and/or encourage agreement on treatment and session goals.

2. **CONVEYS UNDERSTANDING**: Ability to understand and accurately communicate to the client an understanding of the client’s behavior, affect, and feelings.

3. **DEMONSTRATES POSITIVE REGARD**: Ability to display interpersonal skills (warmth, empathy, congruence, genuineness) that promote/maintain the affective component of the client-therapist relationship.

4. **ELICITS CLIENT’S PERSPECTIVE/EXPERIENCE**: Ability of therapist to elicit and remain focused upon the client’s subjective perspective and experience.

5. **FOSTERS COLLABORATION**: The ability of the therapist to make therapy, including setting tasks and goals, a collaboration that is equally shared between therapist and client.

6. **POSITIVE EXPECTANCIES**: Ability of the therapist to increase and maintain the client’s expectations that treatment will be beneficial.

7. **FACILITATES TREATMENT EXPECTANCIES**: Ability of the therapist to establish the credibility of the treatment model and promote client expectations that the treatment model is the right fit for the client (instillation of hope).

8. **FACILITATES THERAPIST CREDIBILITY**: Ability of the therapist to establish for the client that he/she has the necessary knowledge and expertise to successfully treat the client’s presenting problem.
9. **FACILITATES CLIENT SELF-EFFICACY:** The ability of the therapist to instill the belief within the client that he/she is able to perform therapeutic activities and achieve treatment goals.

10. **FOCUSBING TREATMENT:** Ability of the therapist to make efficient use of time during a session and concentrate therapy on key target processes.

11. **STRUCTURE AND PACE:** Therapist ability to provide clear structure and organization to a session with minimal departures from session focus/theme.

12. **CONTINUITY OF TREATMENT:** Ability of the therapist to connect content across meeting to create a sense that treatment is a coherent whole and NOT a series of single meetings.

13. **FOCUSBING ON KEY THEMES:** Ability of the therapist to maintain focus on a small set of themes or ideas during a therapy session.

14. **INSTIGATING CHANGE:** The therapist’s ability to focus the client’s attention upon interpersonal and intrapersonal psychological processes and facilitate new ways of thinking, acting, or behaving toward him/herself and others.

15. **USES CHANGE STRATEGIES EFFECTIVELY:** Ability of the therapist to deliver effective therapeutic interventions to address the cognitive, behavioral, and/or affective elements of the client’s presenting problem.

16. **FACILITATES CLIENT ACTIVE PARTICIPATION:** Ability of the therapist to create a session that is characterized by mutual client-therapist activity, interest, and effort directed at therapeutic activities.

17. **RESPONSIVENESS:** Ability of the therapist to address and respond to client characteristics and in session developments.

18. **MANAGES THERAPEUTIC RELATIONSHIP:** Ability of the therapist to address the client-therapist relationship, particularly including disruptions in that relationship, in a way that allows the session to remain focused upon therapeutic activities.

19. **FLEXIBILITY:** Ability of the therapist to tailor the content and structure of treatment to each client.
Vita

Ruth Christine Chanan Brown was born on August 28, 1979 in Nashville, TN. She received her Bachelor's of Science degree from Middle Tennessee State University in 2002, and her Master's of Arts degree in Psychological Science from James Madison University in 2005. Her main research interests include measure development of internalizing disorders in youth with intellectual disabilities, identification and measurement of important therapy change processes, and dissemination of evidence based practices.

Biographical Information
Date of Birth: August 28, 1979
Place of Birth: Nashville, TN
Citizenship: United States of America

Academic Training

Undergraduate: Middle Tennessee State University
B.S., December, 2002
Major: Psychology

Masters: James Madison University
M.A., July 2005
Major: Psychological Science -Preclinical

Thesis Topic: Investigating the Role of Treatment Adherence to Behavioral Parent Training Interventions

Thesis Advisor: Steven W. Evans, Ph.D.

Doctoral: Virginia Commonwealth University
Ph.D. Expected December 2011
Major: Clinical Psychology -Child and Adolescent

Dissertation Topic: The Development of the Common Factor Therapist Competence Scale for Youth Psychotherapy

Dissertation Advisor: Michael Southam-Gerow, Ph.D.

Academic Honors

2009 1st place student poster award for the Dissemination Special Interest Group at the 2009 Association for Behavioral and Cognitive Therapies annual conference.

2005 First place poster presentation at annual Raising the Bar conference, Harrisonburg, VA
Research Experience

**Graduate Research Assistant.** 2008-2010. Commonwealth Institute for Child and Family Studies, Virginia Treatment Center for Children; Richmond, VA.
Supervisor: Roxann Roberson-Nay, Ph.D.
Project coordinator for Genetic and Pathophysiologic Investigation of Panic Disorder Typologies and Offspring Risk (P.I. Roxann Roberson-Nay, Ph.D.). Responsible for participant recruitment, database management, and data collection. Conducted structured diagnostic interviews (K-SADS) with child and adolescent participants and conducted CO2-enriched breathing task while measuring physiological responses (e.g. heart rate, breath rate, skin conductance, and tidal volume).

**Science Writer** 2009. Commonwealth of Virginia Commission on Youth; Richmond, VA
Supervisor: Michael Southam-Gerow, Ph.D.
Summarized state of the science findings on the diagnosis, assessment, and treatment of Obsessive-Compulsive Disorder, Attention Deficit/Hyperactivity Disorder, and Conduct/Oppositional Defiant Disorder for the Commission on Youth’s Collection of Evidence-Based Treatment Modalities for Children and Adolescents with Mental Health Needs, 4th Edition.

**Treatment Process Consultant.** 2005-Present. Virginia Commonwealth University. Richmond, VA
Supervisor: Michael Southam-Gerow, Ph.D.
Provided consultation related to measuring treatment integrity on a multi-site randomized clinical trial examining the effectiveness of several EBTs in community mental health settings in Honolulu, HI and Boston, MA. Title: Research Network on Youth Mental Health: Evidence-Based Practice in Clinics and Systems. Principal Investigators: John R. Weisz, Ph.D. and Bruce Chorpita, Ph.D. Network is funded by the John D. and Catherine T. MacArthur Foundation.

**Graduate Research Assistant.** 2005-2008. Virginia Commonwealth University; Richmond, VA
PI: Michael Southam-Gerow, Ph.D.
Project coordinator on a number of studies including the Pediatric Anxiety and Depression Screening Study, VCU Emotion Study, The Chesterfield-VCU Adaptation of Depression and Anxiety Psychological Treatments for Children (ADAPT) Project, and the Therapist Follow-up Study. Responsible for participant recruitment, assessment, coordination, training, and supervision of undergraduate research assistants, database management and supervision of data entry for studies conducted in an urban pediatric primary care clinic, pediatric psychiatric hospital, and community services board outpatient clinics. Administered structured diagnostic interviews (K-SADS) and trained fellow graduate students in diagnostic interviewing. Conducted focus groups of mental health stakeholders of pediatric primary care clinic including patients, nurses, residents, and training faculty to determine need and generate ideas for mental health services in pediatric primary medical clinic.

**Graduate Research Assistant.** 2003-2005. Challenging Horizons Program; Harrisonburg, VA
Supervisor: Steven W. Evans, Ph.D.
Responsible for ongoing data collection, data entry, and treatment integrity of a treatment outcome study of school-based mental health program for youth with ADHD. Assisted with preparation of NIMH grant proposals. Modified and updated interventions in Challenging Horizons Program treatment manual, and helped adapt the paper-based manual to computer-based manual to facilitate dissemination of interventions to school staff.
Clinical Experience

Psychology Intern, 2010. Pinecrest Supports and Services Center, Pineville, LA
Supervisor: Troy Raffield, Ph.D. and Lori Nakhlawi, Psy.D.
Conducted psychological, developmental, and intellectual testing for youth and adults with developmental disabilities in a large residential treatment facility. Worked with interdisciplinary team to prepare comprehensive assessment and treatment plans. Designed and implemented behavior management interventions, individual therapy for comorbid internalizing disorders, and group therapy for youth with externalizing disorders. Provided new-hire staff training on planning and implementing supports and the use of “Positive Behavioral Supports.” Provided in-service and incidental training to direct care staff. Supervision of graduate psychology practicum students. Participated in psychiatry clinics, neuropsychological evaluations for dementia, and community-based treatments.

Psychology Extern. 2009-2010. Mental Health Resources, Fredericksburg, VA.
Supervisor: Roger Pasternak, Ph.D.
Administered 1 to 2 integrated psychological assessments each week to children and adults including IQ, personality, and psychodiagnostic evaluations using objective and projective assessments in a community mental health clinic setting. Provided outpatient treatment for children and adolescents with Panic, ADHD, Asperger’s, and Selective Mutism disorders using evidence based treatments.

Therapist. 2008-2010. Virginia Treatment Center for Children, Richmond, VA. Supervisor: Roxann Roberson-Nay, Ph.D.
Provided individual psychotherapy for one adolescent female with Selective Mutism and Social Phobia utilizing cognitive-behavioral therapy and motivational interviewing. Participated in bi-weekly multidisciplinary team for the assessment of Autism spectrum disorders which includes observation of Autism Diagnostic Observation Schedule (ADOS), speech and language assessments, occupational assessments, and providing feedback to assessment team.

Core Therapist. 2006-2008. Center for Psychological Services and Development, Anxiet Clinic, Richmond, VA. Supervisor: Michael Southam-Gerow, Ph.D.
Provided individual psychotherapy and parent-training services to children, adolescents, and adults with anxiety disorders using evidence-based cognitive-behavioral techniques. Conducted diagnostic clinical interviews, prepared integrative intake and treatment reports, maintained progress notes, and monitored patient progress using informal and standardized measures. Participated in weekly individual and group supervision meetings. Participated in multiple Anxiety Clinic outreach efforts within the Richmond, VA community.

Therapist 2006-2007 Center for Psychological Services and Development, General Clinic. Richmond, VA. Supervisors: Gerry Weinberger, Ph.D., Arnold Stolberg, Ph.D.
Provided individual psychotherapy services to an adult with chronic depression using client centered, interpersonal, and Acceptance and Commitment Therapy techniques. Conducted psychological assessment of a child for rule-out of Asperger’s Disorder and provided subsequent treatment for social anxiety. Assessment included WISC-III, Woodcock-Johnson Achievement Test, behavioral observations, Asperger Syndrome Diagnostic Scale, and structured clinical
interview. Prepared integrative intake and treatment reports. Maintained progress notes and monitored patient progress using informal and standardized measures. Participated in weekly individual and group supervision meetings.

Served as a therapist on the substance abuse team where I observed multi-disciplinary treatment planning and staffing meetings, conducted substance abuse assessments with adolescents utilizing Substance Abuse Subtle Screening Inventory 3 (SASSI-3) and served as co-facilitator for adolescent substance abuse groups using motivation interviewing techniques.

Supervisor: Steve W. Evans, Ph.D.
Provided supervision of school-based mental health program for adolescents with attention deficit hyperactivity disorder. Provided individual supervision to undergraduate counselors including helping them develop treatment plans, implement interventions, adhere to manual, create treatment summaries, and provide appropriate communication and assessment with parents and teachers. Served as program liaison with school staff and was responsible for accurate implementation of group interventions, and helped conduct monthly parent meetings. Responsible for administration of structured clinical interviews including DISC-IV and various rating scales. Coordinated multiple-baseline treatment outcome study with homework management training for parents, provided individual training sessions with parents and coordinated the collection of dependent measures.

Supervisor: Steven W. Evans, Ph.D.
Provided treatment to adolescents with ADHD within the context of the Challenging Horizons Program. Developed the treatment plan within the parameters of the manual based treatment and served as liaison between child’s parents and teachers. Lead group education interventions and social skills groups, and assisted with supervision of program and undergraduate counselors.

Professional Activities

Memberships:
Psi Chi
American Psychological Association
Anxiety Disorders Association of America
Association for Behavioral and Cognitive Therapies
Association for Psychological Science

Reviewer:
2009-present. School Mental Health. Editor Steven W. Evans, Ph.D.

Publications and Presentations

Published Book Chapters:


Conference Presentations:


Cognitive Therapies in Orlando, FL.


Teaching Experience

Graduate Teaching Assistant. 2008-2009. Department of Correctional Education. Supervisor: Suzanne Kennon, M.S.
Served as instructor for Mom’s Inc. and Dad’s Inc. (Incarcerated) Parenting Program for incarcerated parents in several Central Virginia state prisons. Lead several 8-week courses providing instruction on basic child development, helping parents understand the effects of the trauma their children experience as a result of their incarceration, and teaching communication skills and strategies for parenting from prison. Additional duties included offering individual guidance on mental health issues, and supporting parents in reestablishing and maintaining healthy communication with children.

Teaching Assistant. 2004 (summer): Childhood Psychopathology, James Madison University. Supervisor: Steven W. Evans, Ph.D.
Served as teaching assistant and prepared and presented lectures on childhood anxiety, depression, and social withdrawal. Created test questions and assisted with review and grading of student tests and papers.

Program Development

Autism Training Program, 2010. Pinecrest Supports and Services Center, Pineville, LA
Developed and implemented an autism training program utilizing evidence-based practices for 11 youth with autism spectrum disorders. Responsibilities included: coordination of services between Psychology, Habilitation Services, and Residential Support Services departments, designing program curriculums, designing individual treatment plans, training psychology and support staff in the use of discrete trial training and other evidence-based interventions for individuals with autism, purchasing classroom and training materials, development of specialized training materials.