AN INVESTIGATION OF THE PHASE MODEL OF PSYCHOTHERAPY ACROSS
THERAPEUTIC ORIENTATIONS: ARE DIFFERENT APPROACHES
ACTUALLY ALL THAT DIFFERENT?

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The current study investigated the process of change underlying two different evidence-based treatments that yield similar outcome effectiveness in the treatment of depression: Cognitive Therapy (CT) and Interpersonal Therapy (IPT). The phase model of psychotherapeutic change (Howard et al., 1993) change is used to provide both a theoretical and practical framework in which to assess different patterns of change across the treatment modalities. The phase model posits that recovery from distress occurs in three sequential stages: remoralization, remediation and rehabilitation. CT can be conceptualized as a treatment in which the primary focus is on the treatment of symptoms (remediation), whereas IPT can typically be conceptualized as focusing on interpersonal conflicts and functioning (rehabilitation). The study utilized the TDCRP dataset (Elkin et al., 1985). Survival analysis indicated no significant difference in terms of onset or pattern of improvement across treatment orientations. Chi square analyses indicated individuals treated with IPT spend significantly more time engaged in rehabilitation compared to their CT counterparts. Taken together, these findings represent evidence that the process of therapeutic change is similar, if not virtually identical, across therapeutic orientation. The analyses also indicate that the phases of therapy may not necessarily be mutually exclusive and sequential, but may instead represent co-occurring patterns of improvement which are not sequentially determined.

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CHAPTER I

INTRODUCTION

Psychotherapy has become an almost ubiquitous mental health intervention over the past century and has resulted in an abundance of research being published. Broadly speaking, psychotherapy research aims to capture what happens in the process of psychotherapy and leads to the most favorable outcomes. Psychotherapy has been found to be an effective treatment for a broad spectrum of diagnoses across a range of populations, with multiple meta-analyses supporting this conclusion (Bradley, Greene, Russ, Dutra & Westen, 2005; Crits-Christoph, 1992; Cuijpers, Van Straten, Warmerdam & Smits, 2007; Shedler, 2010; Smith & Glass, 1980; Weisz, Weiss, Han, Granger & Morton, 1995).

In order to address the issue of whether or not different therapies have similar (or indeed identical) mechanisms and sequences of change, it is useful to investigate not only the end result of psychotherapy (outcome) but also the process of psychotherapy. Given the need for comprehensive explanations of the process of psychotherapy, a number of theoretical models have been proposed such as the generic model of psychotherapy (Orlinsky & Howard, 1984) and the dose-effect model of psychotherapy outcome” (Howard, Kopta, Krause, & Orlinsky, 1986). Each of these models has contributed to the understanding of the mechanisms underlying the process of therapy, however the most notable and relevant model for the current study is the phase model of psychotherapy (Howard, Lueger, Maling & Martinovich, 1993)

The Phase Model

The phase model of psychotherapy (Howard et al., 1993) posits that individuals move through three sequential phases during successful psychotherapy: *remoralization*, *remediation* and *rehabilitation*. The first of these phases, remoralization, refers to an increase in the

individual's subjective feelings of hope that psychotherapy will be of assistance in overcoming present difficulties. This remoralization phase can manifest itself through a variety of variables, such as the client's belief in the competence of the therapist (Ackerman & Hilsenroth, 2003), the working alliance (Hovarth & Symonds, 1991), the client's perception of themselves (Bachelor, LaVerdiere Gamache & Bordeleau, 2007), or the client's perception of the usefulness of psychotherapy (Garfield, 1974) to name but a few. This first phase of psychotherapy can be thought of as a foundation upon which the therapeutic work will be done. It is this sense of remoralization which may foster the client returning for subsequent psychotherapy sessions, something which is essential in psychotherapy – if the client is not present they cannot be treated. The process of remoralization can be seen as similar to Sue and Zane's (1987) concept of "gift giving" early in psychotherapy. Essentially, this concept can be summarized by highlighting the importance of the therapist demonstrating their ability to help the client early in psychotherapy and is thus akin to the establishment of hope or remoralization described in the phase model.

The phase following remoralization is known as *remediation* and is primarily concerned with the abatement and lessening of symptoms or direct manifestations of the client's current distress and life problems (Howard et al., 1993). This phase has been varyingly conceptualized as the period during which cognitive and interpersonal strategies are utilized to enhance functioning and ameliorate distress (Schwartz, 1997; Stulz & Lutz, 2007). Additionally, it should be noted that the majority of psychotherapy research has thus far been concerned with the role and impact of various specific factors on the alleviation of distress and particular symptoms (for example, see Fonagy & Roth's (2005) review).

An important factor to note in relation to the phase model is the fact that it is transtheoretical – that is, not tied to a specific school of psychotherapeutic thought. This is especially relevant for the current study, given that it is a model of the process of psychotherapeutic change and not necessarily a model of psychotherapeutic outcomes.

Previous research indicates that the phase model is applicable for a range of populations, with much research utilizing a psychodynamic approach to psychotherapy (Fowler, Ackermann, Speanburg, Bailey, Blagys & Conklin, 2004; Haase, Frommer, Franke, Hoffmann, Schulze-Muetzel, Jaeger et al., 2008; Hilsenroth, Ackerman and Blagys, 2001). The model has also been used as a basis for a number of treatment tracking measures which have been found to be reliable and applicable in clinical practice (TEaM; Grissom, Lyons & Lutz, 2002; COMPASS; Stulz and Lutz, 2007).

Although the above studies seem to offer general confirmation of the phase model, other studies indicate that the phase model may not generalize across clinical populations. Specifically, in one study there was no evidence found that the phase model generalizes from moderately distressed clients involved in long-term psychotherapy to more severely disturbed individuals who are engaged in intensive, time-limited treatment (Joyce, Ogrodniczuk, Piper & McCallum, 2002). There is also evidence that the phases may be delayed in training clinic settings (Callahan, Swift & Hynan, 2006). Thus, there does exist conflicting evidence regarding the generalizability and portability of the model, however it is unclear the extent to which these discrepancies are artifacts of design flaws in the research literature (Stevens, Hynan & Allen, 2000). These methodological concerns include possible issues of analysis (the use of cross tabulation as opposed to growth curve modeling, the lack of pre-treatment data on client characteristics, etc.)

and thus it is unclear as to how much of these non-significant findings were due to problems with the phase model and what was attributable to design error.

The phase model is a model which is highly pragmatic and applicable in day to day clinical practice, and represents a powerful and unique method to investigate whether or not therapies which are theoretically unique are indeed distinct from one another in terms of manifest therapeutic progress. The theoretical implications of an invariant (or indeed, a variable) sequence of phases across orientations is also unclear. In order to attempt to elucidate the issue a brief review of the theoretical bases, techniques and evidence for the effectiveness of two commonly utilized therapies (cognitive psychotherapy and interpersonal psychotherapy) will now be undertaken. The reasons for selecting these two therapeutic approaches are that both have been found to be effective for the same disorder (depression), subjected to rigorous examination of efficacy, and are theoretically distinct and well-defined (e.g., Elkin et al., 1989).

The Present Study

In order to address the issue of whether or not different therapies have similar (or indeed identical) mechanisms and sequences of change, it is useful to investigate not only the end result of psychotherapy (outcome) but also the process of psychotherapy. The phase model of change provides an excellent theoretical framework in which to do this. Within the psychotherapeutic research literature, two forms of psychotherapy have been found to be effective for a range of psychopathology, including depression: cognitive psychotherapy (CT; Butler, Chapman, Forman & Beck, 2006; Elkin, Shea, Watkins, Imber, Sotsky, Collins, Glass, Pilkonis, Leber, Docherty, Fiester & Parloff, 1989; Freeman, Garety, McGuire & Kuipers, 2005; Gloaguen, Cottraux, Cucherat & Blackburn, 1998; Hensely, Nadiga & Uhlenhuth, 2004; Leykin, Amsterdam, DeRubeis, Gallop, Shelton and Hollon, 2007; Merrill, Tolbert & Wade, 2003; Shamsaei, Rahimi,

Zarabian and Sedehi, 2008; Newman, 2010) and interpersonal psychotherapy (IPT; Clougherty, Verdeli, Mufson and Young, 2006; De Mello, De Jesus Mari, Bacaltchuk, Verdeli & Negebauer, 2005; Elkin et al., 1989; Hinrichsen, 2008; Reay, Stuart & Owen, 2003;). Despite their apparently similar effectiveness, the two therapies posit quite different theoretical bases for therapeutic improvement, as well as different therapeutic techniques. The focus of CT is on symptoms and the thought processes that underlie them (Beck, 2005; Beck, Rush, Shaw & Emery, 1979; Dobson & Khatri, 2000; Kanter, Rusch, Holman, Whiteside, Landes & Sedivy, 2009) and thus may be summarized as being chiefly concerned with the remediation phase of the model. IPT, on the other hand, primarily targets interpersonal conflicts and the processes that underlie relational patterns (Blanco, Clougherty, Lipsitz, Mufson, Weissman, 2006; Evans, 1996; Hoffman-King & Giles, 2010; Klerman, Weissman, Rounsaville & Chevron, 1984; Poleshuck, Gamble, Cort, Cerrito, Rosario-McCabe, Sundberg, 2001; Weissman & Markowitz, 2005), which reflects the rehabilitation phase of the model since this relates to social role functioning and interpersonal distress.

Since these two therapies have two separate focuses which can be conceptualized using a well supported model of psychotherapeutic change, we are provided with a unique opportunity to determine the differences between the two in terms of session by session progress in psychotherapy. Essentially, the question is this: do individuals being treated with CT exhibit a different pattern of change when compared with individuals being treated using an IPT approach? If the focus of the treatment is indeed different, then logic would dictate that differential patterns would emerge across the approaches. This could conceivably manifest itself in one (or both) of two ways: the sequence of the phases may vary and/or the amount of time spent in each stage may differ. If IPT is truly an interpersonally based model, it theoretically

follows that this treatment will primarily be rooted in the rehabilitation phase. If CT is truly addressing the issues it purportedly addresses, then this treatment will primarily be concerned with the remediation phase of the model.

CHAPTER II

REVIEW OF THE LITERATURE

Psychotherapy has become an almost ubiquitous mental health intervention over the past century and has resulted in an abundance of research being published. Psychotherapy has been found to be an effective treatment for a wide range of psychopathology across a range of populations, with multiple meta-analyses supporting this conclusion (Bradley, Greene, Russ, Dutra & Westen, 2005; Crits-Christoph, 1992; Cuijpers, Van Straten, Warmerdam & Smits, 2007; Shedler, 2010; Smith & Glass, 1980; Weisz, Weiss, Han, Granger & Morton, 1995). In fact, effectiveness has been found to be on par with psychopharmacology, with superior long-term outcomes being observed in some studies (Shedler, 2010).

Broadly speaking, psychotherapy research aims to capture what happens in the process of psychotherapy and leads to the most favorable outcomes. In order to address the issue of whether or not different therapies have similar (or indeed identical) mechanisms and sequences of change, it is useful to investigate not only the end result of psychotherapy (outcome) but also the process of psychotherapy. Given the need for comprehensive explanations of the process of psychotherapy, a number of theoretical models have been proposed. The most notable and relevant for the current study is the phase model of psychotherapy (Howard, Lueger, Maling & Martinovich, 1993). Before expanding upon the relevance and importance of this model, it is important to provide some background and context to the formulation of the phase model of psychotherapy.

Models of Psychotherapy

Orlinsky and Howard (1984) proposed a generic model of psychotherapy which was based on an extensive literature review that aimed to identify the important factors in

psychotherapy in a transtheoretical manner. This model identified five key components of psychotherapy: (1) the therapeutic contract, (2) therapeutic interventions, (3) therapeutic bond, (4) self-relatedness, and (5) therapeutic realizations. Psychotherapy was thus theorized to be most effective when it addressed, altered and utilized these factors, regardless of the therapeutic orientation of the practitioner. This model is probably best characterized as a meta-theory of psychotherapeutic intervention, in that it identifies important “active ingredients” in psychotherapy, but fails to be easily applicable in clinical practice because of its vague formulation of the process of psychotherapy. However, the model is in keeping with its original purpose. This model of psychotherapy was designed to be a summary of key research findings in relation to the process of psychotherapy, and was thus never intended to be applied directly to individual cases (Orlinsky, 2009). It is neither a model of therapeutic outcomes, nor therapeutic change, but rather a meta-theory designed to guide further research and thus not intended to be a clinically applicable model. This tendency toward largely non-applicable (in the clinical realm of conducting psychotherapy) theories can be contrasted with a number of important models of psychotherapy which are widely supported by research and evidence significant clinical utility. The most important of these is Howard and colleagues’ formulation of the “Dose-Effect Model of Psychotherapy Outcome” (Howard, Kopta, Krause, & Orlinsky, 1986).

The Dose-Effect Model

The dose effect model is based on the premise that receiving more sessions of psychotherapy (the dose) will result in increasingly more favorable outcomes for the individual undergoing treatment, with the effect being measured as a logarithmic function of the number of sessions of psychotherapy being attended and the effect being measured as a response in the client’s functioning and symptom distress. Essentially, each session can be considered an

individual dose of treatment, with the concept of magnitude of response being a function of the level of dosage coming from medical literature examining drug treatments. This model was found to have some utility; however the portability of the findings across differing types of setting posed a problem. The dose response relationship was not consistent across settings (e.g. the delayed response seen in training clinics (Callahan & Hynan, 2005). Additionally, while the model has some aspects that could be described as change-based, such as the concept of the changing projected outcomes based on current dosage levels of psychotherapy, it is essentially a model of psychotherapy outcome, with a logarithmic assumption regarding the quantity of psychotherapy received and the improvement evidenced, with a somewhat dichotomous view of the therapeutic work being successful (improvement in the client) or unsuccessful (no improvement in the client). As such, this model represents an increasingly practical outlook on psychotherapy research. Another model of psychotherapeutic change which can be used in tandem with the dose-effect model is the phase model of psychotherapy.

The Phase Model

The phase model of psychotherapy (Howard et al., 1993) posits that individuals move through three sequential phases during successful psychotherapy: *remoralization*, *remediation* and *rehabilitation*. Since its primary function is to track the progress of the client through the phases of psychotherapy, it represents a model of change. The first of these phases, remoralization, refers to an increase in the individual's subjective feelings of hope that psychotherapy will be of assistance in overcoming present difficulties. The remoralization phase can manifest itself through a variety of variables, such as the client's belief in the competence of the therapist, the client's perception of themselves, or the client's perception of the usefulness of psychotherapy to name but a few. This first phase of psychotherapy can be thought of as a

foundation upon which the therapeutic work will be done. It is this sense of remoralization which may foster the client returning for subsequent psychotherapy sessions, something which is essential in psychotherapy – if the client is not present they cannot be treated.

Perceiving one's therapist as credible is vital for continued participation in psychotherapy. Sue and Zane (1987) have elucidated this process, especially as it pertains to the culture of the client. They make a distinction between clients' views of their therapist in terms of ascribed and achieved credibility indicating that ascribed credibility comes from a cultural understanding of "healers" as people who are to be respected. Achieved credibility refers to the individual therapist's ability to portray themselves as a credible healing influence to the client independent of cultural expectations. Early establishment of this credibility is vital and Sue and Zane discuss the importance of "gift-giving" (a reduction in distress or increased understanding of problem which the client ascribes to the work of the therapist) in establishing credibility. Essentially this concept can be summarized by highlighting the importance of the therapist demonstrating their competence early in psychotherapy. This process is intertwined with the concept of remoralization and successful "gift giving" is thus somewhat akin to a remoralization process.

The phase following remoralization is known as remediation and is primarily concerned with the abatement and lessening of symptoms or direct manifestations of the clients' current distress and life problems (Howard et al., 1993). This phase has been varyingly conceptualized as the period during which cognitive and interpersonal strategies are utilized to enhance functioning and ameliorate distress (Schwartz, 1997), in addition to mobilizing and utilizing new coping skills learned in psychotherapy (Stulz & Lutz, 2007). Additionally, it should be noted that

the majority of psychotherapy research has thus far been concerned with the role and impact of various specific factors on the alleviation of distress and particular symptoms.

The third and final phase of the phase model is termed rehabilitation and refers to the resumption (or in some cases assumption) of adaptive social, professional and role functioning (Howard et al. 1993). This phase can be conceptualized as the final manifestation of therapeutic gains in that it is primarily concerned with more objective measures of mental health such as degree of adaptive functioning across a range of roles and domains. This phase is thus the final step in therapy and in some ways represents the culmination of the previous phases in that it is theoretically built upon the establishment of hope for the future (remoralization) and the lessening of symptom distress (remediation).

An important factor to note in relation to all of these models is the fact that they are transtheoretical – that is, not tied to a specific school of psychotherapeutic thought. This is especially relevant for the phase model, given that it is a model of psychotherapeutic change and not necessarily psychotherapeutic outcomes. The phases of the model have been found to be invariant in sequence across a number of settings (e.g. Fowler, Ackermann, Speanburg, Bailey, Blagys & Conklin, 2004; Schwartz, 1997). However, it is unclear if this invariance is observed across psychotherapeutic orientations. Due to the model being identified as transtheoretical, it has great utility in terms of being applied to various therapeutic schools of thought. For example, it also allows the different schools to be directly compared in terms of how much time the individual spends at each point in the model. As such it also provides a proxy measure of the common factors and dodo bird conclusions regarding psychotherapy: Is there a difference regarding what happens in psychotherapy across orientations, or is almost all of therapeutic improvement be attributable to common factors? Since the phase model provides a

transtheoretical and somewhat transcendent measure of therapeutic progress, it potentially allows us to determine if there exists differences in patterns of recovery across orientations. If the technique of each psychotherapy is truly unique and different then there may be evidence of difference in the phases of improvement (as conceptualized by the phase model), either in sequence or length.

Phase Model Evidence

In order to provide an adequate overview of evidence for the phase model, first studies involving psychotherapy in a range of treatment settings will be reviewed, then treatment outcome tracking systems which have been based on the phase model will be discussed. Following this, some of the limitations of the phase model will be discussed and finally applications of the phase model beyond psychotherapy will be briefly explored.

In a somewhat unorthodox and unique approach to measuring changes in psychotherapy and how this relates to the phase model, one study utilized the Thematic Apperception Test (Murray, 1943), the Rorschach Inkblot Test (Rorschach, 1951) and an evaluation of scores on Axis V of the DSM-IV-TR (APA, 2001) in order to measure changes in personality, symptoms and life functioning (Fowler, Ackermann et al., 2004). This study found that changes in symptoms and social functioning were relatively quick to come about, however personality change was significantly slower to occur. The testing occurred once at the beginning of treatment and once towards the end of treatment, on average after 16 months of intensive four times a week psychodynamic psychotherapy. This study supported the concept of phases of change in psychotherapy, however the limited testing pattern utilized in the study prevented any in depth investigation of the phase model.

In an investigation of the phase model to short-term psychodynamic psychotherapy, Hilsenroth, Ackerman and Blagys (2001) found that clients progress sequentially through the phases of increasing subjective well being (remoralization), reduction of symptom distress (remediation) and improvement in relational functioning (rehabilitation). Specifically, they observed a trend of improvement consistent with the phase model, with improvements in subjective well being and a reduction in symptom distress observed predominantly at the third and ninth session respectively. This study again suffers from the problem of having only two data points and thus whilst the three phase model cannot be fully supported by this research design, there does seem to be significant evidence for at least part of the model.

The phase model has also been supported using intensive inpatient, primarily psychodynamic, treatment, with participants receiving an average of 10 hours of various types of intervention a week (Haase, Frommer, Franke, Hoffmann, Schulze-Muetzel, Jaeger et al., 2008). Haase et al. found that 4 weeks of this intensive psychodynamic treatment was found to have a significant effect on reducing symptom distress (remediation) and increasing subjective well-being (remoralization). Within an inpatient setting, remoralization was observed to occur after one week (8 sessions) of treatment, with symptom reduction occurring within the first three weeks of treatment (9-26 sessions). Significant change in interpersonal functioning was generally only observed after the 8 week program was completed (80 hours of treatment). This indicates that the first two phases of the model occur with relative quickness, with the third taking a significantly longer time to manifest itself. The dose effect model was also supported in this study, indicating that rehabilitation occurs not only as a function of elapsed time, but also number of sessions.

The phase model has also been supported using qualitative methods. One such study found that a single individual (who participated in cognitive-dynamic psychotherapy) who was experiencing significant depression (whose case study was the subject of the paper) exhibited gains across the domains which are most salient to each successive phase in the sequential order outlined by the phase model (Schwartz, 1997). Specifically, the subject exhibited significant early gains in optimism very early in session (remoralization). This was subsequently followed by a focus on developing coping strategies and symptom reduction which was characterized by a stabilization of both optimism and emotional stability (remediation). Finally, the subject entered the last phase of psychotherapy in which he exhibited a marked increase in emotional stability, positive social interactions and improved mood. This study was carried out using the phase model as a part of the framework used to conceptualize the trajectory of the subject's treatment, indicating that the model can be integrated adequately into other models of improvement.

Clinical Applications of the Phase Model

Evidence of the phase model's clinical relevance can be seen in the development of the treatment evaluation and management outcome system (TEaM; Grissom, Lyons & Lutz, 2002). The TEaM system assesses the client's progressions through the evaluation of their subjective well-being, intensity of symptoms, role functioning and level of working alliance with their therapist. Through the application of this system, clients' progression through the phases of improvement can be identified and treatment tailored accordingly. A 92-item self-report measure, the TEaM instrument yields a gross measure of distress, which is a composite of the scores achieved on phase-specific subscales. This instrument provides the basis of a psychotherapy outcome and process monitoring system which, based on the empirically

supported phase model, can be used to map out trajectories of typical patterns of improvement resulting from psychotherapy.

The COMPASS system is another system based on the phase model of improvement which aims to assess the client's progress through successive phases of improvement in psychotherapy. Stulz and Lutz (2007) applied this system, using growth mixture models, to identify trajectories of response to treatment among outpatient participants across the United States. They found that participants, based on their responses to treatment, typically fell into one of three categories or groups: phase model consistent, partial rapid responders and symptomatically high impaired. This categorization indicates that individuals who follow the phase model (63% of the total sample) typically enter psychotherapy with less distress across each domain posited by the phase model, with consistent gains being observed across the domains of subjective well-being, symptom reduction and life functioning. The second largest group (17%) was termed "partial rapid responders," because they evidenced significant early improvements in both subjective well-being and symptom distress, to a greater extent than even the phase model consistent participants. However, despite remaining in psychotherapy for a sufficient amount of time for life functioning to improve, this group evidenced a stagnant life functioning score, which failed to improve despite the improvements in other domains of the model. Finally, the remainder of the sample was classified as being "symptomatically high impaired," who were identified by their significantly greater impairment, especially symptom distress. Their pattern of improvement indicates an increase in subjective well-being, an improvement in symptom distress (which nevertheless remained significantly higher than that seen in other groups), but stagnation of life functioning, similar to the partial rapid responder group. This indicates that, while the phase model commonly characterizes changes in the

majority of individuals engaged in psychotherapy, a significant minority of clients exist who do not follow the phase model.

In an effort to further develop the state of patient focused (in contrast to treatment focused) research, Lutz and colleagues used the phase model as a theoretical basis for the development of a system of psychotherapy process tracking which emphasized adaptive decision making in treatment based on a phase model informed rubric (Lutz, Rafaeli, Howard & Martinovich, 2002). This system, which utilized the expected treatment response method, aimed to account for not only the characteristics the clients presented with, but also the continuous input of new information elicited by tracking treatment response throughout treatment itself. Instead of calculating a single curve (representing ideal treatment response), this method involved a recalculation of the expected treatment response curve repeatedly so as to account for differing initial responses to treatment. This study appears to have been something of a small scale pilot study, with an aim to further develop the system to include curve modeling data for different subsets of treatment responders.

Limitations of the Phase Model

In contrast to these confirmatory findings in favor of the phase model, there also exists data indicating that the phase model may not generalize across clinical populations. Specifically, in one study there was no evidence found that the phase model generalizes from moderately distressed clients involved in long-term psychotherapy to more severely disturbed individuals who are engaged in intensive but time-limited treatment (Joyce, Ogrodniczuk, Piper & McCallum, 2002). Using a sample of significantly impaired outpatients attending a hospital-based clinic, this study found that there was a significant increase in subjective well-being, but that this occurred towards the end of treatment, in contrast with the assertions of the phase model

which identifies this improvement as necessarily occurring near the beginning of treatment. Additionally, this study found that life functioning appeared to improve substantially very early in treatment, again contrary to the phase model conceptualization of recovery in psychotherapy. These findings cast doubt on the generalizability of the phase model across populations; however, there may be some flaws in the design and execution of the study which may, at least partially, account for this lack of generalizability. These concerns include possible issues of analysis (the use of cross tabulation as opposed to growth curve modeling, the lack of pre-treatment data on client characteristics, etc.) and thus it is unclear as to how much of these non-significant findings were due to problems with the phase model and what was attributable to design error.

Whilst a consistency in treatment response has been observed across a number of settings, there appears to be possible nuances between settings. For example, a delayed version of the phase model has been reported in an outpatient training clinic (Callahan, Swift & Hynan, 2006), with the authors speculating that the delayed response to treatment may have been a function of limited clinician experience and/or competency.

There are some difficulties inherent in investigating the phase model of psychotherapy. Some of these difficulties have been expounded upon by Stevens, Hynan and Allen (2000) in their meta-analysis of the contribution of common and specific factors to psychotherapy outcome within a phase model framework. Essentially these difficulties were of two types: (1) the instruments used in many of the studies analyzed did not lend themselves to an evaluation of the various domains set out in the phase model, and (2) the length of treatment was insufficient to support the phase model (more than 79% of the studies analyzed had a mean treatment length of

less than 10 sessions). Thus, due to these limitations, the authors' findings were inconclusive due to insufficient data.

The Phase Model Applied Beyond Therapeutic Improvement

The model has also been applied to other therapeutically relevant processes besides improvement. One such process that the phase model of improvement has been applied to is deterioration. Based on the rationale that deterioration is likely characterized by what in essence is an inverted phase model, one study found that a reverse phase model (which was composed of the sequential processes of *dehabilitation*, *demediation*, and *demoralization*) was applicable to two samples; one community sample of university undergraduates and one clinical sample of individuals attending a university-based psychology clinic (Swift, Callahan, Heath, & Herbert, 2010). Some of the data gathered for the paper indicated that individuals who deteriorated in psychotherapy exhibited increased symptoms (demediation) followed by demoralization or dehabilitation, with no specific ordering of these phases being observed. Additional data suggested that these latter two phases of deterioration occurred in theorized sequence with individuals exhibiting decreased life functioning and finally a decreased sense of well-being. There were a number of notable findings resulting from this paper, amongst them evidence that individuals who deteriorated during psychotherapy exhibited significantly higher likelihood of treatment failure in the event of deterioration occurring during psychotherapy. This study shows the versatility of the phase model as it can be applied not only to therapeutic improvement, but also deterioration in both treatment and the community.

The phase model is a model which is highly pragmatic and applicable in day to day clinical practice, and represents a powerful and unique method to investigate whether or not therapies which are theoretically unique are indeed distinct from one another in terms of manifest

therapeutic progress. The theoretical implications of an invariant (or indeed, a variable) sequence of phases across orientations is unclear. In order to attempt to elucidate the issue, a brief review of the theoretical bases, techniques and evidence for the effectiveness of two commonly utilized therapies (cognitive psychotherapy and interpersonal psychotherapy) is now undertaken.

Cognitive Therapy

Cognitive psychotherapy is a therapeutic orientation which came about as a reaction to the psychoanalytic zeitgeist of the psychiatric world over 40 years ago (Dobson & Khatri, 2000) and later, to some extent as a reaction to the strictly behavioral approaches which were advocated in organizations such as the Association for Advancement of Behavioral Therapies (AABT) which later became the Association for Association for Behavioral and Cognitive Therapies (ABCT; Meichenbaum, 2003). Due to the sheer volume of the body of research concerning CT, a comprehensive review of this literature is not appropriate for the current study and thus a number of representative recent studies is covered in the literature review in order to illustrate some pertinent issues relating to the current paper.

With influences from Kelly's personal construct theory (PCT; Kelly, 1955) and Ellis' rational emotive therapy (later rational emotive behavioral therapy) (REBT; Ellis & Dryden, 2007), cognitive psychotherapy is based on the fundamental tenet that psychopathology results from the systematic and pervasive distortion of the individuals' construction and perception of internal and external stimuli (Beck, 2005). These biased interpretations result in the individual experiencing distress and are informed by the client holding what Beck calls a range of maladaptive "irrational beliefs" which then coagulate to form negative cognitive schemas (Beck, Rush, Shaw & Emery, 1979). Central to the theory and application of cognitive psychotherapy is the proposition that cognitive processes mediate behavioral change and thus in order to change

behavior, one must change cognitions (Dobson & Khatri, 2000). The focus on issues in the present, as they occur in psychotherapy and in the client's outside life, was highlighted by Kanter and colleagues (Kanter, Rusch, Holman, Whiteside, Landes & Sedivy, 2009). This focus is characterized by a concentration on the cognitions and thoughts of the individual as opposed to the interpersonal processes of psychotherapy and thus is a tenet of psychotherapy which is unique to CT. This focus on cognitions in the here and now as opposed to emotional experiences which are presumed to have their roots in earlier formative interactions with caregivers is one that is in stark contrast to other approaches to psychotherapy, specifically psychodynamic psychotherapy.

Techniques of Cognitive Therapy

The actual techniques utilized in CT can be seen as something of a blend of behavioral and, predominantly, cognitive techniques. Thus, the utilization of thought records, the discussions of negative automatic thoughts, the outlining of behavioral activation schedules and the disputing of irrational beliefs are some of the primary methods used in CT (Beck et al., 1979).

Amongst the techniques used in CT, two of the most common are distraction techniques and counting thoughts (Fennell, 1989). The distraction techniques are exactly that; they are designed to distract the client from their current distress. This distraction is achieved by using techniques like focusing on an external object, mental exercises (such as counting backwards in 7's), and utilizing pleasant memories and fantasies. Counting thoughts refers to making a note of how often negative automatic thoughts come to mind and then making a concerted effort to put these thoughts to one side thereby attempting to minimize the impact of these thoughts on the individual's mood.

Following these initial stabilization strategies attempts are made in psychotherapy to verbally challenge negative automatic thoughts, with questions such as “what is the evidence?” “what logical errors are being made” and “what are the advantages and disadvantages of this way of thinking?” being commonly utilized (Fennell, 1989).

Research on CT Techniques

A primary change in thinking regarding CT is that of the perceived accessibility of schemas to the individuals in psychotherapy (Goldfried, 2003). Initially, these schemas were thought to be open to the individual’s conscious awareness and could be investigated solely by asking the client directly about their beliefs. This shifted over time towards an understanding that beliefs and schemas are often implicitly held and therefore must be investigated through a discussion of the clients’ various interactions and thoughts. The content of these schemas are then extrapolated from this evidence.

A number of techniques used within a CT paradigm have been the subject of research, the process of which is ongoing. For example, the one such recent finding was that the process of evaluating beliefs appears to be more easily facilitated by the use of a disconfirmatory reasoning style which attempts to find multiple explanations for specific events and mood states (Freeman, Garety, McGuire & Kuipers, 2005). The concept of choice within CT is another area in which there has been some theoretical progress. Dryden (2009) identified the client’s perception of themselves as an informed consumer of psychotherapy who is an active and purposed participant in the process as an important aspect of CT. This assertion is somewhat reminiscent of the remoralization phase of the phase model of psychotherapy and thus is illustrative example of the application of theories and techniques of change across therapeutic modalities.

An example of a case study of CT used with an individual experiencing depression is presented in a paper by Newman (2010). This case study illustrates the processes involved in CT, including the identification of maladaptive and irrational beliefs, the disputing of these beliefs through a modification of negative automatic thoughts and the use of homework assignments, as well as more behavioral aspects of treatment such as the identification of avoidance as a central aspect of the psychopathology and behavioral methods to counteract this.

Szentagotai and colleagues attempted to identify mechanisms of change within CT, in order to highlight the “active ingredients” of CT – essentially what aspects of the psychotherapy were accounting for the most change and was the psychotherapy altering what it was theoretically purported to be altering (Szentagotai, David, Lupu & Cosman, 2008). They found that whilst individuals who had undergone CT reported that their irrational beliefs had altered via self report measures, this change was not evidenced on measures which addressed beliefs in a less face valid way. The meaning of this finding is unclear, however it may be feasible to characterize the process of CT as a method of change that operates purely at the conscious level, leaving underlying unconscious schemas and issues untouched.

Additionally, research related to the utilization of novel techniques and the combination of therapeutic approaches with the provision of CT is another important area of scientific inquiry. An example of this can be seen in Kipper’s integration of psychodramatic methods into traditional CT (Kipper, 2002). Specifically, Kipper outlines the use of the Cognitive Double in a group situation in which another member of the group plays out the role of the individual’s psyche in order to investigate and modify the individual’s irrational beliefs. The use of family systems approaches has also been attempted within a CT framework, as seen through the use of the cognitive behavioral relationship record which aims to help the client identify and make

sense of chronic relationship problems that they experience (Carriger, 2009). Another example can be seen with the integration of mindfulness based techniques and theory into traditional CT which has been written about a number of times (Ma & Teasdale, 2004; Crane, Barnhofer, Duggan, Hepburn, Fennell & Williams, 2008). It is interesting to note that in Crane and colleagues' paper, the theoretical basis put forth for the experience of depression is based on a perceived distance between the ideal self and the actual self, which in and of itself is a distinctly Rogerian approach to psychopathology. Thus, it appears that integration of CT with a number of other therapies is being attempted with at least some degree of success.

However, in spite of shifts in thinking regarding some aspects of cognitive psychotherapy such as this movement towards integration of various approaches, the paradigm (including both theory and application) of cognitive psychotherapy remains largely unaltered from its original form. CT can still be described in terms of the cognitive model of depression, upon which CT is based. As a result of this consistency in method and theory, the amount of data concerning the efficacy and effectiveness has grown to be a substantial body of literature.

It is also notable that the nature of CT and the ease with which outcomes can be measured and quantified may have also been a factor in the focus of efficacy research on this treatment modality. Cognitive psychotherapy's ultimate goal has been identified as being cognitive change which manifests itself directly in the cessation of maladaptive behaviors and the emergence of adaptive ones in their place (Dobson & Khatri, 2000). This has, in part, led to cognitive psychotherapy accruing extensive empirical support and may be one of the reasons for the preeminent place the psychotherapy now hold in modern psychotherapeutic theory and practice.

Research Findings Regarding the Effectiveness of CT

Leykin and colleagues highlighted the effectiveness of cognitive psychotherapy for Major Depression Disorder as compared to pharmacotherapy given the phenomenon of progressive resistance (Leykin, Amsterdam, DeRubeis, Gallop, Shelton, & Hollon, 2007). The findings from this study indicate that repeated exposure to antidepressant pharmacotherapy can lead to an increased tolerance for medication and thus many individuals exhibit significantly reduced response to antidepressants (specifically selective serotonin reuptake inhibitors; SSRIs). This tolerance building for effect was not observed in CT.

CT has also been found to have long lasting effects. In a literature review, Hensley, Nadiga and Uhlenhuth (2004) identified five studies that addressed long-term improvement following a course of CT. These studies indicated that a successful course of CT was associated with higher rates of mental wellness for significant amounts of time following cessation of psychotherapy, with one study indicating 52.9% of the sample remained free of clinical levels of distress at 15 months after the conclusion of psychotherapy.

In a seminal paper, Gloaguen and colleagues performed a meta-analysis using the results of 78 controlled clinical trials of cognitive psychotherapy for depression (Gloaguen, Cottraux, Cucherat & Blackburn, 1998). The data analysis revealed a similar efficacy for cognitive psychotherapy as for the behavioral therapies it is often compared to or paired with and thus was found to be an efficacious treatment. Interestingly, the analysis also failed to identify any covariate that had any significant impact on effect size and thus, there exists evidence that individual demographic data for clients does not impact the effectiveness of the treatment. It therefore appears to be the case that CT may be a treatment which is very well suited to the manualization which it has undergone since it seems to be effective for most the participants in

the studies analyzed regardless of their background. This study also supported the finding that cognitive psychotherapy is associated with lower rates of relapse than pharmacotherapy alone.

In a particularly wide-ranging and extensive paper, Butler and colleagues conducted a literature review of the published meta-analyses investigating the effectiveness of Cognitive Behavioral psychotherapy, of which CT is one of the most commonly used modalities (Butler, Chapman, Forman & Beck, 2006). The authors concluded that, based on the outcome data, CT is an effective treatment for a range of psychopathology, amongst them Major Depressive Disorder (MDD). The meta-analyses reviewed also involved a range of samples from across the life span, including studies involving adolescents with a range of severity of distress related to depression, indicating that CT appears to be effective when used with a range of people presenting with a range of functioning difficulties. The review of the literature also indicated that CT is a cost-effective treatment for depression when compared to pharmacotherapy and thus concluded that CT is a useful and effective first choice treatment for MDD.

In addition to the extensive number of efficacy studies into CT which utilize a randomized controlled trial (RCT) methodology, there is significant evidence supporting the clinical effectiveness of CT in applied settings. For example, Merrill and colleagues found that CT was most effective for mild and moderate depression when they conducted a study in a community mental health center (CMHC) investigating the portability of CT from a highly controlled environment (RCT) to a real-world setting (Merrill, Tolbert & Wade, 2003).

CT has also been found to be effective in non-Western cultures. For example, Shamsaei, Rahimi, Zarabian and Sedehi (2008) investigated the efficacy of CT alone and in conjunction with pharmacotherapy using a sample of adults diagnosed with major depressive disorder in Hong Kong. Their 8-week protocol resulted in a statistically significant decline in distress as

measured by the Beck Depression Inventory (BDI; Beck, Ward & Mendelson 1961), with adjunct treatment fairing best out of each of the conditions. The statistical analyses associated with this study were relatively crude; there were no effect sizes reported, no use of an accepted metric for what constitutes useful levels of improvement (e.g. the clinically significant improvement method; Jacobson & Truax, 1991) and generally a poorly thought out use of *t*-test and null hypothesis testing. Despite this, the study's results are encouraging in the context of other investigations of multicultural applications of CT.

Interpersonal Therapy

Interpersonal psychotherapy is another popular approach to psychotherapy that is commonly utilized in the treatment of a range of psychopathology, amongst them, MDD (Klerman, Weissman, Rounsaville & Chevron, 1984). IPT is a relatively new treatment methodology (one of the main texts outlining the IPT approach to psychotherapy was published in 1984), however it's theoretical and historical roots can be traced to a number of older schools of thought on psychotherapy.

A major influence on the development of interpersonal treatment was the work of Harry Stack Sullivan (Sundberg, 2001). Originally trained in the traditional psychoanalytic approaches, Sullivan rejected Freud's psychosexual theory of psychopathology, instead preferring to view mental health difficulties as a result of interactional patterns, thereby originating what has come to be referred to as "interpersonal psychoanalysis" (Evans, 1996). Sullivan's ideas were largely unaccepted in his own time, but have since become part of the bedrock upon which many aspects of a range of therapeutic techniques and theoretical formulations related to psychopathology are built. Specifically, Sullivan is credited with originating the gender and largely value/culture free term "significant other" to refer to an individual's close partner (Evans, 1996). He is also

credited as being an early advocate of removing the patriarchic approach that many in the mental health field traditionally took towards their patients by reconceptualizing mental illness as what he termed “problems in living,” thereby attempting to remove some of the negative connotations which are often attached to these terms. It is important, however to recognize that modern interpersonal psychotherapy, whilst drawing on some of the principles of interpersonal psychoanalysis, is a treatment approach which is distinct and separate to the Sullivanian approach.

Interpersonal psychotherapy is built on the concept that the patient’s current interpersonal relations and functioning are the issues most central to their current psychopathology and functioning and thus, the individual’s social functioning within their interpersonal context is of paramount importance within psychotherapy (Klerman et al., 1984). The IPT conceptualization of psychopathology is one that results from an interpersonal problem that is often characterized as one of the following: (1) grief, (2) role transition, (3) role dispute, and (4) interpersonal deficits (Blanco, Clougherty, Lipsitz, Mufson, Weissman, 2006). The focus of treatment is thus understanding and, to some extent, altering personal relationships and their connection to current distress. This focus on current interpersonal relationships is one of the major ways that IPT is distinguished from psychodynamic approaches in that the role of past relationships is downplayed in favor of understanding the individual’s current social dysfunction (Weissman & Markowitz, 2005). The role of personality and early childhood experiences are thus generally not something that are addressed in IPT.

The structure and differing roles of various individuals within a patient’s interpersonal matrix are also of central importance in IPT. In a formulation that is vaguely reminiscent of family systems psychotherapy/theory, Klerman et al. (1984) identify the differing roles that each

person plays in multiple overlapping social structures as being central to the experience and expression of distress. This inherent hierarchy within social structures has significant impact on the expression of clinical distress, since these pressures are thought to have both an etiological and perpetuating role in the expression of mental disorder. In an etiological sense, psychopathology is identified as the result of poor social role functioning, whereas from a maintenance point of view, social dysfunction is often a consequence of this pathology. Thus, alleviating this social distress is theorized to be central to the alleviation of individual suffering.

A parallel has been drawn between IPT and short-term psychodynamic psychotherapy by some authors (Markowitz, Svartberg & Swartz, 1998). The reasons for this are numerous: Sullivan was a psychoanalyst, the central importance of the relationship between the therapist and the client is an historically psychodynamic notion, some of the techniques used in both approaches are often similar to the point of becoming indistinguishable, to name but a few. Despite this, IPT is generally thought of as a unique approach to psychotherapy.

In addition to the focus on current relationships and the general non-engagement with the concept of personality, another aspect of IPT which contrasts it with psychodynamic treatments is the fact that it is manualized (e.g. Elkin et al., 1985) and as such exhibits applications that are typically not characteristic of psychodynamic approaches to psychotherapy. Additionally, the focus of the psychotherapy on current interpersonal situations and relationships which is utilized in the absence of a focus on past (often parental relationships) sets the treatment apart from psychodynamic psychotherapy.

The difficulty in classifying IPT is one which has led to some controversy regarding meta-analytic findings related to the efficacy of various schools of psychotherapy. Specifically, Crits-Christoph and colleagues in his 1992 meta-analytic paper on the efficacy of dynamic

treatments included studies which used IPT under the umbrella term of psychodynamic psychotherapy (Crits-Christoph, 1992). This inclusion has been criticized on the grounds that IPT is a psychotherapy unique from more traditionally psychodynamic approaches and bears enough dissimilarity to be considered its own bona fide treatment approach (Markowitz et al., 1998).

Techniques of IPT

The techniques of IPT are very much linked to the interpersonal theory of psychopathology and, as such, aim to further both the therapists and the client's understanding of the client's social circumstances and how this influences their current distress.

As a result of this one of the major topics with IPT sessions is the role of current expectations of others on the client (Crowe & Luty, 2004). Specifically, many clients difficulties can be understood in the context of them (or other people who are important to them) feeling that they are not doing what is expected of them given their current role in society and culture. This is often done through seeking additional information about the client's interpersonal network and how they view this, discussing beliefs and assumptions regarding interpersonal relationships, exploring communication patterns and exploring affective responses to these interpersonal interactions.

The influence of role expectations on the development of depression is also a central theme in IPT (Crowe & Luty, 2005). Additionally, there is an emphasis placed on recognizing parallels and patterns between various current social relationships and discussing these in the therapeutic context. These similarities are highlighted by the therapist and processed with the client in psychotherapy, with this facet of treatment constituting a significant aspect of the initial phase of treatment. Other common techniques are the use of analogies and challenging beliefs

about interpersonal relationships and interactions with the aim of alleviating interpersonal and personal distress through the modeling of more adaptive relationships, as well as the processing of negative interactions with others and exploring alternative methods for social interaction.

Modified IPT

IPT has also been altered and modified for use with specific populations and specific clinical problems. Interpersonal therapy for adolescents (IPT-A) is an example of such a treatment, with one of the main impetuses for developing this treatment being the high rates of depression amongst adolescents who are experiencing significant shifts in their social networks and perceived social roles (Mellin & Beamish, 2002). This treatment is very much rooted in “traditional” IPT, but with modifications that make it suitable for adolescents such as the psychoeducation of parents, social skills training, a recognition of the central role of the child’s family in their social functioning, etc.

Another modified version of IPT is interpersonal psychotherapy for co-occurring depression and chronic pain (IPT-P). This treatment protocol is again heavily rooted in the interpersonal model, but with the caveat of recognizing the central role that the client’s pain has in perpetuating negative social interactions and interpersonal relationships (Poleshuck et al., 2010). This modification includes integrating pain management techniques, encouraging self-care and various other aspects of psychotherapy that are often utilized in psychotherapy involving issues of chronic pain.

IPT has also been modified to be a longer term supportive treatment, with the advent of maintenance IPT (IPT-M). IPT-M is largely based on the concept that therapeutic interventions are often needed sporadically following acute treatment in order to maintain gains and encourage further improvement (Frank, 1991). This concentration on achieving more longstanding changes

in interpersonal patterns is the primary way in which IPT-M differs from traditional IPT. This divergence in methodology is also evident in the timing of the therapeutic interventions as set out by Frank (1991) in that the sessions occur once-a-month over the course of three years. Despite these differences however, IPT-M remains an iteration of IPT and not a unique psychotherapy approach.

Research Findings Regarding the Effectiveness of IPT

IPT has been subjected to a number of efficacy studies that have used randomized clinical trial (RCT) methodology. De Mello and colleagues analyzed the result of 13 IPT outcome studies in which participants received treatment for a range of mood (primarily depressive) disorders (De Mello, De Jesus Mari, Bacaltchuk, Verdeli & Negebauer, 2005). The studies used both traditional IPT, as well as some of the variants of IPT which have been described previously (IPT-A and IPT-M) and found that IPT is an efficacious treatment for depressive disorders. The data indicated similar effects for IPT and psychopharmacological interventions, but evidenced slightly lower dropout rates for IPT. Additionally, IPT was found to evidence superior outcomes when compared to CT. These findings should be considered in the context of some of the limitations of the meta-analysis. Chief among these was the relatively small sample sizes used in many of the studies analyzed which prevented definitive conclusions being reached from this data. Also of concern is the relatively laissez-faire approach to identifying the disorders which were treated; for example of the studies analyzed, there was significant amounts of variability in the diagnoses treated with MDD, dysthymia, and mood disorders in general being among those identified. Despite these shortcomings, the data does evidence at least partial support for the efficacy of IPT.

IPT, like CT, has also been evaluated in a more naturalistic setting, in this case a community mental health center (Reay, Stuart & Owen, 2003). This study utilized a final sample size of 17 participants who completed a course of IPT for depression, across a number of sites with clinicians reporting a range of training fields (e.g. social workers, psychologists, nurses etc). The results indicate that IPT is an efficacious treatment for depression; however, due to the naturalistic settings of the study there is a possible confounding factor of individual therapist skill impacting outcomes. Also, the variety of measurement tools used to assess level of depression symptomology in participants may be an issue to the reliability and validity of this study in that the results were collected using a range of instruments and were analyzed without providing any information regarding effect sizes.

IPT has also been applied in non-Western cultures. Clougherty, Verdeli, Mufson and Young (2006) studied the transportability of IPT to Uganda where they were involved in the training of lay clinicians who received between 12 and 20 hours of training in IPT methodology. These trainees were then supervised as they treated clients in rural Uganda. The treatment manual was altered to account for the different cultural context and language of treatment, but retained all central aspects of IPT. This approach was chosen due to its emphasis on the role of the individual's social context on their psychological well-being which was seen to be especially salient given the collectivist culture of Uganda. The effectiveness of these interventions is unclear however, as this study dealt primarily with the training of therapists as opposed to the effectiveness of the actual treatment. Regardless, this does constitute evidence of the ability of a range of individuals to learn how to deliver IPT-based interventions, as well as evidence of increasing utilization of an IPT paradigm in other cultures.

IPT with older populations is relatively under-researched and thus it is difficult to determine if it is an effective treatment for this population. However, there is evidence that the treatment is a promising treatment for depression in older populations (Hinrichsen, 2008). Theoretically, IPT is a very promising treatment for older adults given the current zeitgeist relating to the desire for increasingly meaningful and deep interpersonal interactions as indicated by socioemotional selectivity theory (Mather & Carstensen, 2003).

The Present Study

A significant theme within psychotherapy research that is of particular relevance to the current study is the differential effectiveness of various schools of psychotherapy for mental illness. Essentially the question is, “Are clients who are treated with different therapies (which are purported to be so unique from each other) actually manifesting differences in their therapeutic progression?” The controversy centers on a conclusion which has been dubbed the dodo bird verdict (Messer & Wampold, 2002) and states that all psychotherapy outcome rates are similar; there is little difference between the various forms of psychotherapy since they all seem to have virtually the same level of effect as supported by meta-analytic findings. A number of researchers have criticized the dodo bird verdict on the basis of meta-analytic approaches obscuring the details of the impact of each technique by reducing them to a single number (an effect size) which tells us little or nothing of the real world impact of these different treatment styles (e.g., Beutler, 2002; Chambless, 2002). Additionally, there has been criticism which has centered on difficulties with the methodology of meta-analysis, specifically that most authors do not perform appropriate moderator or mediator analyses and thus often neglect important third variables that likely exert an impact on the effectiveness of differing types of psychotherapy (Shadish & Sweeney, 1991).

In order to address the issue of whether or not different therapies have similar (or indeed identical) mechanisms and sequences of change, it is useful to investigate not only the end result of psychotherapy (outcome) but also the process of psychotherapy. The phase model of change provides an excellent theoretical framework in which to do this. The two forms of psychotherapy that have been outlined (CT and IPT) posit quite different theoretical bases for therapeutic improvement, as well as apparently different therapeutic techniques. The focus of CT is on symptoms and the thought processes that underlie them and thus may be summarized as being chiefly concerned with the remediation phase of the model. IPT, on the other hand, primarily targets interpersonal conflicts and the processes that underlie relational patterns, which can be seen in the rehabilitation phase of the model since this relates to social role functioning and interpersonal distress.

Since these two therapies apparently have two separate focuses which can be conceptualized using a well supported model of psychotherapeutic change, a unique opportunity to determine the differences between the two in terms of session by session progress in psychotherapy is available. Essentially the question is this: do individuals being treated with CT exhibit a different pattern of change in comparison to individuals being treated using an IPT approach? If the focus of the treatment is indeed different, then logic would dictate that differential patterns would emerge across the approaches. This could conceivably manifest itself in one (or both) of two ways: the sequence of the phases may vary and/or the amount of time spent in each stage may differ. If IPT is truly an interpersonally based model, it theoretically follows that this treatment will primarily be rooted in the rehabilitation phase. If CT is truly addressing the issues it purportedly addresses, then this treatment will primarily be concerned with the remediation phase of the model.

In order to investigate the possible variability in the observed phases of change across treatment modalities, a large dataset utilizing a number of manual based treatment protocols over a significant amount of time is needed. A number of archival datasets were considered, however the data resulting from The National Institute of Mental Health Treatment of Depression Collaborative Research Program (TDCRP) was selected due to a number of reasons which will be outlined below.

Treatment of Depression Collaborative Research Program (TDCRP) Data

The TDCRP was a multisite study undertaken throughout the 1980s that aimed to determine the relative efficacy of CT, IPT and an antidepressant (imipramine) in the treatment of depression (Elkin, Parloff, Hadley & Autry, 1985). The TDCRP was the first large scale multisite psychotherapy efficacy research study and as such was an exemplar of many guidelines for good practice within RCT-based research. Preparation for the study began with the training of clinicians (22 clinicians across 3 different sites in 3 different geographical areas) who would be providing treatment in the respective psychotherapeutic orientations. This training was overseen by the progenitors of the techniques, with Aaron Beck and Gerald Klerman being varyingly involved to different degrees in the training. In keeping with the RCT-informed nature of the study, standardized treatment protocols were used, with both the IPT and CT protocols being 16 weeks of duration. A range of measures of psychopathology, interpersonal functioning and symptom distress were administered to the participants at various points in their treatment. 250 participants began the study, with a sample size of 119 completing all 16 sessions of psychotherapy.

Previous Studies Utilizing TDCRP Data

Given that the TDCRP is a seminal study on psychotherapeutic efficacy, it is no surprise that a number of papers have been published using the data. In order to elucidate this body of research and highlight the need for research into the phase model and how this may be different across different psychotherapy orientations, a brief overview of these studies will now be undertaken. This review also illustrates that the TDCRP data has not previously been analyzed in the manner proposed in the current study and, thus, the proposed study will usefully add to the literature utilizing this dataset.

The first and most widely cited study that published findings from the TDCRP was a paper which investigated the general effectiveness of the three different conditions for the treatment of depression (Elkin et al., 1989). These initial findings indicated evidence for the limited specific effectiveness of the individual treatments. Specifically, pharmacotherapy and IPT were found to have superior rates of improvement compared to placebo conditions. This effect was somewhat obscured by the highly similar mean improvement scores across the treatment conditions, indicating that, when taken at aggregate levels, pharmacotherapy, IPT and CT appear to be equivalently effective in the treatment of depression. This finding was elucidated somewhat, however by the dichotomization of the sample based on initial severity of depression. When these analyses were carried out, it evidenced a differential impact of the treatment types with pharmacotherapy and IPT evidencing slightly more impact on severely depressed individuals. The treatments were seen to be equivalent for participants experiencing more moderate and mild depression.

Ogles, Lambert and Sawyer (1995) used slightly different statistical techniques to evaluate the clinical significance of the findings of the TDCRP, specifically applying Jacobson

and Truax's reliable change index (RCI; 1991). The RCI aims to be an indication of the clinical ("real world") impact of therapeutic interventions and is an index which has gained significant support in the research literature as a measure of therapeutic effectiveness. In order to calculate this index a decrease of 1.96 (or more) standard deviations on a measure of pathology is designated as an essential part of reliable change. The concept of the functional range is also central to the RCI criterion in that the lessening of distress must reach the point of being able to be designated as functioning normally (i.e., the end score cannot fall within the clinical range of the measure). Using the RCI, Ogles and colleagues observed significant improvements across treatment conditions (among treatment completers, with IPT evidencing 85% of participants as being in the functional range at cessation of treatment and 65% of CT participants evidencing the same outcome. These individuals each exhibited reliable change in addition to their final positive outcome, indicating that they had moved from the clinical to the nonclinical range of functioning over the course of treatment. It is notable that these findings were obtained using an overall psychological symptom checklist and not a syndrome specific measure for depression.

A study of particular interest to the current endeavor is Albon and colleagues' analysis of psychotherapy process which attempted to assess the stance and interactions of the patients and therapists in each session (Albon and Jones, 1999). Their findings indicate that therapists of different orientations exhibited a focus on different techniques during the psychotherapy process. The IPT therapists adopted a nonjudgmental and accepting therapeutic stance, with a focus on the individual's social context, as well as the client's self image. These therapists were also seen as undemanding, non-patronizing and involved. CT therapists were found to have focused primarily on ideational themes and beliefs which inform the client's world view, as well as an emphasis on behavioral tasks to be undertaken outside of psychotherapy. There was also a focus

evidenced which centered on then client's interpersonal relationships. Their stance was seen to be nonneutral with a tendency to dispense advice, exhibiting both an affectively present therapeutic style as well as exerting active control over the session. The clients' behavior during session was largely invariant across treatment modalities with both sets of clients apparently seeing their therapist as supportive and undemanding. Clients also indicated that the psychotherapy seemed to be helpful to them regardless of modality. This study thus indicates that there is both divergence and convergence in terms of focus and technique across modalities. There was no evaluation of these processes in terms of phases of psychotherapy.

The interpersonal processes which are of paramount importance in IPT have been the subject of a number of papers which address the centrality of the therapeutic alliance using the TDCRP data. Krupnick and colleagues sought to elucidate the role of therapeutic alliance in psychotherapy approaches that were not of the psychodynamic school (Krupnick et al., 1994). This study found that alliance was most important for IPT, with the researchers identifying the interpersonal focus of IPT as the primary reason for this. Similarly, Crits-Christoph and colleagues utilized the TDCRP dataset to assess the impact of level of therapists' accuracy in their understanding and conceptualization of interpersonal conflicts of the client (Crits-Christoph, Gibbons, Temes, Elkin & Gallop, 2010). Their findings indicate that this accuracy is more important in IPT than in CT, in keeping with the theoretical bases of the respective treatments.

The dataset has also been utilized to investigate the impact of therapist characteristics on therapeutic outcomes. Blatt and colleagues found that therapists who eschew biological interventions in their practice, tended to have better outcomes when compared to less psychologically minded therapists (Blatt, Sanislow, Zuroff & Pilkonis, 1996). Related to this, a

series of papers concerning therapist effects was published using this dataset in 2006. In the series a number of different findings were communicated and discussed. The primary controversy between these studies was that one found significant therapist effects in terms of psychotherapy outcome (Kim, Wampold & Bolt, 2006) whereas another found essentially zero effect for therapist (Elkin, Falconnier, Martinovich & Mahoney, 2006). In a response to these contradictory findings, Crits-Christoph and Gallop (2006) indicated that they believed the difference was an artifact of using a different modeling method and that research using other data sets indicates a small to moderate magnitude of effect for individual therapist influence.

The TDCRP has also been used to formulate and test long-term outcome measures that aim to assess the impact of psychotherapy in the long-term across a range of domains of functioning (Elkin, Ainbinder, Park & Yamaguchi, 2006). Blatt and colleagues used the data to investigate long-term manifestations of therapeutic change beyond simple symptom reduction (Blatt, Zuroff, Hawley & Auerbach, 2010). They found that the dodo bird verdict seems to be a function of this symptom focus, with different patterns of functioning emerging as the result of different approaches to psychotherapy.

The TDCRP has also led to contributions to the literature on the role of client's expectancies for psychotherapy on the process and outcome of treatment. One such study (Meyer, Pilkonis, Krupnick, Egan, Simmens & Sotsky, 2002) examined the role of expectancies in the context of therapeutic alliance in positive therapeutic progress. This study found that differing expectancies were associated with varying progress through psychotherapy, with clients who expect to be actively engaged in psychotherapy and that psychotherapy will be of benefit to them exhibited better outcomes when compared to those who did not have the same expectations. Therapeutic alliance was not found to have a significant effect on this. These

expectations can be seen as being akin to the concept of hope, which is itself similar to the remoralization phase of the phase model.

Additionally the TDCRP data has been analyzed to investigate the effect of focusing on emotion, with the finding that as negative emotion increased significantly, the therapist found it increasingly difficult to adhere to modality-specific interventions (Coombs, Coleman & Jones, 2002). Initial severity of distress has also been found to be an important influence on therapeutic outcomes, with higher initial distress being associated with psychopharmacology apparently being more effective than therapeutic intervention for the most severely depressed participants (Elkin et al., 1995).

Whilst this overview of studies that have utilized the TDCRP data is relatively brief, and by no means exhaustive, it gives a sense of the kind of research that has been conducted using this data. Clearly, the TDCRP data has been used for process and outcome analysis across a range of theoretical approaches, but there have not been any specific analyses of the data (or any other data) with the aim of investigating the phase model across therapeutic orientations.

Hypotheses

In order to address the issue of whether or not different therapies have similar (or indeed identical) mechanisms and sequences of change, it is useful to investigate not only the end result of psychotherapy (outcome) but also the process of psychotherapy. The phase model is utilized as a framework to investigate the proposed differences between two theoretically different therapies (CT and IPT). The hypotheses tested in the current study are:

H₁ – The pattern of change during therapy, as conceptualized in the phase model, will differ based on therapeutic approach.

H_{1A} – Clients in the IPT condition will demonstrate reliable change within the rehabilitation phase before evidencing reliable change in the remediation phase.

H_{1B} Clients in the CT condition will demonstrate reliable change within the remediation phase before evidencing reliable change in the rehabilitation phase.

H₂ – The number of sessions associated with each phase during therapy will differ based on therapeutic approach.

H_{2A} – Clients in the IPT condition will remain in the rehabilitation phase for significantly more sessions than clients in the CT condition.

H_{2B} – Clients in the CT condition will remain in the remediation phase for significantly more sessions than clients in the IPT condition.

X-Axis Key: 0=Intake, 1=4 weeks, 2=8 weeks, 3=12 weeks, 4=Completion, 5=6 months, 6=12 months, 7=18 months, 9=Censored

Figure 1. Survival function for onset of remediation across treatment orientation

CHAPTER III

METHODOLOGY

Sample

Patients

Referral sources for the treatment of depression collaborative research program (TDCRP) study primarily consisted of psychiatric outpatient services at each of the three research sites (George Washington University, Washington DC; University of Pittsburgh; University of Oklahoma, Oklahoma City). Potential participants were screened using the Schedule for Affective Disorders in order to determine the presence of a current episode of Major Depressive Disorder, as defined by the Research Diagnostic Criteria (Waskow, 1984) in use at the time, which remain largely unchanged. Additional screening criteria included requirements that the participants be between the ages of 21 and 60, that they had at least an 8th grade reading level and that they had the requisite ability to complete self rating forms. Exclusion criteria for the study included diagnosis (or probable diagnosis) of a concurrent psychological disorder such as bipolar disorder, substance abuse/dependence, psychosis, etc.

At the completion of the screening process, 125 patients were identified as suitable to enter the psychotherapeutic treatment phase of the study, with 63 (46 females, 17 males, Mean Age = 35.16, $SD = 9.03$) being randomly assigned to the interpersonal therapy (IPT) condition and 62 (47 females, 15 males, mean age = 34.17, $SD = 8.68$) to the CT condition. With regard to sociodemographic variables, the sample was primarily white (86% and 85% for cognitive therapy (CT) and IPT respectively) with a range of educational experiences (approximately 43% of the overall sample were college graduates, 31% had attended some college and 26% had either a high school diploma or less) and marital statuses (of the CT group, 34% were single, 31% were

married/cohabiting and 36% were separated/divorced/widowed, whereas in the IPT group, 20% were single, 52% were married/cohabiting and 28% were separated/widowed/divorced). Of these patients, 47 of those assigned to the IPT condition and 37 of those assigned to the CT condition were designated as treatment completers based on their completion of a mean of 16 therapy sessions, with between 12 and 16 sessions being identified as a full course of treatment for both treatment conditions.

Therapists

Clinicians providing services within the TDCRP program received training specific to the relevant theoretical orientation they would be practicing. Clinicians were selected based on a number of inclusion factors – each needed either a PhD in clinical psychology or MD (with psychiatric residency) and needed at least two years post-doctoral (PhD) or post residency (MD) full time clinical experience with relevant populations. Clinicians were then assigned to training programs (for either IPT or CT) based on their own preferences and experiences with these models. In an attempt to standardize training experiences, each clinician underwent 2 weeks of standardized training in either IPT or CT and subsequently supervised by staff from the training sites for between 12 and 19 months on 3-4 sample cases to ensure treatment fidelity.

Seventeen clinicians (8 CT and 9 IPT) were ultimately included in the study, with 75% of the CT practitioners being male and 78% of the IPT practitioners being male. The clinicians assigned to the CT condition were younger and, on average, had less clinical experience (mean age = 39, range = 33-51, mean experience in years = 10, range = 6-16) than those assigned to the IPT condition (mean age = 46.3, range = 31-55, mean experience in years = 15.9, range = 3-26).

Settings

The TDCRP data was collected at three research sites in the continental United States. Each of the research sites were outpatient psychiatric clinics located within large universities. Two of the sites were located within large cities on the Eastern seaboard (Pittsburgh and Washington DC), with the other being located in a Midwestern city (Oklahoma City). In order to reduce confounding factors which would result from using multiple sites for the study, approximately equal numbers of IPT and CT practitioners were placed at each site.

Instruments

A wide range of data was collected at multiple points throughout the TDCRP study. For the purposes of the current study the psychometric properties of the relevant instruments used will be described. For ease of conceptual understanding, these instruments are grouped as tools that measure constructs related to either remediation or rehabilitation.

Remediation

Beck Depression Inventory (BDI; Beck et al., 1961): The BDI is a widely used self-report measure of depressive symptomology. It consists of 21 questions and utilizes a 4-point Likert style scale for each question, with higher scores indicating increasingly severe degrees of depression. In a summary of the psychometric properties of the instrument, Beck and colleagues reviewed 25 years worth of studies which utilized the BDI and concluded that the both the reliability and validity of the instrument are acceptable. Specifically, research indicates that, in relation to internal consistency, the BDI displays a mean coefficient alpha of 0.86 for clinical populations and 0.81 for non-clinical populations (in the current study Cronbach's alpha was found to be 0.93). Additionally, studies of concurrent validity indicate that BDI scores correlate well with the Hamilton Rating Scale for Depression.

Hamilton Rating Scale for Depression (HRSD; Hamilton, 1960): The HRSD is a self-report instrument that addresses depressive symptomology and utilizes a 3-5 point Likert style scale response format. Multiple forms of the instrument exist, with the form being utilized by the TDCRP study consisting of the first 17 items of the scale. The HRSD measures many of the same constructs as the BDI and as such both are relevant measures of the symptoms of depression, which the remediation phase of therapy is concerned with, since the remediation phase is akin to symptom reduction. With regard to validity, the HRSD has exhibited acceptable validity (Ramos-Brieva & Cordero-Villafafila, 1988) and has been used in multiple studies investigating various aspects of depression. There is also evidence that the instrument is a reliable and relatively stable measure of depression (Hsieh & Hsieh, 2005), with the current intraclass correlation coefficient ranging from 0.93 to 0.96 across sites and treatment approach. Despite this evidence, there is some controversy as to the psychometric soundness of the HRSD, with some commentators indicating that it is conceptually and psychometrically flawed (Bagby, Ryder, Schuller, Marshall, 2004).

Rehabilitation

General Life Functioning scale (GLF; Elkin et al., 2005): The GLF scale (specifically developed for the TDCRP study) is most easily conceptualized as a measure of positive functioning, as opposed to a measure of pathology. Consisting of 13 items in a self-report format, the instrument addresses a range of issues that center on the patient's subjective perception of their well-being and their perceived ability to cope with negative stressors, and as such can be described as a measure of quality of life. These two factors of well-being and coping have been supported by factor analysis (Pedersen, Pallay & Rudolph, 2002), with Mazumder and colleagues suggesting the existence of a third single item factor addressing interpersonal

closeness (Mazumder, Reynolds, Houck, Frank, Dew & Kupfer, 1996). Findings regarding both validity and reliability have been positive, with the psychometric properties of the instrument being deemed acceptable (Elkin et al., 2005).

Schedule for Affective Disorders and Schizophrenia – Change Version (SADS-C; Endicott & Spitzer, 1978) - Global Assessment Scale (GAS; Endicott, Spitzer, Fleiss, & Cohen, 1976): The GAS is contained within the SADS-C and measures the overall psychological functioning of a patient on a scale of 1-100, with 100 indicating excellent psychological adjustment and health. In this way it is quite similar to the Global Assessment of Functioning (GAF) scale from the DSM-IV-TR (APA, 2001). The GAS evaluates functioning beyond symptomology of a specific mental health disorder and has been found to be reliable and valid across a range of populations and mental health disorders (Endicott et al., 1976).

Social Adjustment Scale - Social and Leisure Activities and Work (SAS; Weissman & Paykel, 1974): The SAS is a self-report measure of social functioning, with the version used in the TDRCP addressing two distinct areas: Social and Leisure Activities (nine items) and Work All (six items). These items address the degree to which the patient is participating in activities across distinct social contexts. The reliability of the instrument has been shown to be good and there is also evidence of acceptable validity (measured as correlation with other measures of social functioning (Weissman, Olfson, Gameroff, Feder & Fuentes, 2001).

Katz Adjustment Scales-Relative Report Form (KAS-R; Katz & Lysterly, 1963): The KAS-R is a measure of a variety of constructs related to social functioning. The form used in the TDCRP is filled out by a close relative of the patient and addresses functioning in areas such as positive social adjustment and social aggression problems related to mood that consequently impact social adjustment. The instrument has been validated using the Minnesota Multiphasic

Inventory (as well as other instruments) as a measure of functioning and was found to have good discriminant validity. Reliability was also assessed with mean internal consistency estimate being 0.73 (Boothroyd, 2005).

Procedures

Patients were screened and selected for treatment as described earlier. Each participant was assessed multiple times before, during, and after treatment (a comprehensive table indicating what instruments were administered and when they were administered can be found in Elkin and colleagues original outline of the TDCRP study (Elkin et al., 1985). Each patient was assigned to a treatment condition, each of which lasted approximately 16 weeks and followed a standardized protocol.

The TDCRP data was obtained by the researcher following correspondence with Dr. Irene Elkin, the primary investigator on the TDCRP. The data was sent via courier and consisted of a CD ROM with the study data in SPSS file format. Two documents accompanied the data (a documentation report and a collection of the study forms which consisted of the instruments used in the study) and were used to provide information needed to clean and amalgamate the data. The data was also recoded so survival analysis could be performed (Tabachnik & Fidell, 2007).

Figure 2. Survival function for onset of rehabilitation across treatment orientation

CHAPTER IV

RESULTS

Survival analysis was originally developed to assist in identifying factors contributing to the differential rates of survival across organisms, as well as the “survivability” of mechanical components in a range of industrial contexts (Luke & Homan, 1998). It is used in a variety of fields such as economics and medicine and is the basis for the majority of actuarial science and applications (through the development of life tables; Tabachnik & Fidell, 2007).

Survival analysis is primarily concerned with the length of time between entry into observation and the occurrence of a subsequent event. Traditionally this event has been the death of a patient or the failure of a component, however it is possible to apply survival analysis methodology to a range of situations in which time elapsed until an event is an important consideration.

With this in mind, survival analysis was deemed appropriate for the current study as the primary issue within the current context is length of time to an event (remediation and rehabilitation) across two groups (cognitive therapy [CT] and interpersonal therapy [IPT]). Therefore, the central issue for the study was determining if (1) there was a significant difference between groups in terms of sequence of phases and (2) if the time until onset of each phase was different between groups.

In order to conduct survival analysis, data must be converted into categorical data (Tabachnick & Fidell, 2007). To do this Jacobson and Truax’s reliable change index methodology was utilized (RCI; Jacobson & Truax, 1991; $RC = \frac{X_2 - X_1}{S_{diff}}$). This method requires data (specifically mean scores and standard deviations, as well as test/retest reliability statistics) for both clinical and community/normal populations to be known. These numbers are then input

into an equation to determine the amount of change (in units on the original measure) needed for significant change. A further statistic is then calculated which is the cutoff for normal versus abnormal functioning. In order for clinically significant improvement to have occurred, an individual's score needs to exhibit a change larger than the RCI which crosses from the nonfunctional into the functional range (based on the cutoff for normal versus abnormal functioning). This procedure was carried out with each of the measures which were included in the final data analysis.

Measuring Therapeutic Improvement

Measuring Remediation

The BDI (Beck et al., 1961) was utilized as a measure of remediation in the current study due to its excellent psychometric properties and the comprehensive and consistent administration schedule within the TDCRP. The RCI and clinical cutoffs for the BDI were previously calculated in a paper by Seggar, Lambert and Hansen (2002) and thus, these statistics were used to classify participants as having entered or not entered the phase of remediation. Seggar and colleagues identified a three-sample normative continuum which they termed "asymptomatic community, community, and clinically symptomatic" (Seggar et al., 2002). The asymptomatic community sample was screened for psychopathology and was found to be asymptomatic. The community sample was composed of individuals who were not currently receiving treatment for any psychiatric issue, but were unscreened for psychopathology. This group data was culled from previous research produced on the BDI using community sample. Finally, the clinical sample was also collected from previously published studies and was composed of individuals who were currently receiving treatment for depression. Seggar and colleagues then calculated RCIs based on this continuum, specifically regarding how many points of change were needed between

adjacent groups. The RCI selected for the current study was a drop of 8.46 to below 14.29 points, which were the statistics generated for the shift from the clinical group to the community group. Given the very high level of functioning and virtual absence of distress in the asymptomatic sample, the community sample was thought to be a more practical and realistic representation of normal functioning for the clinical group.

The Hamilton depression rating scale (Hamilton, 1960) was also utilized as a measure of remediation. Given the length of time the HDRS has been in use there is a vast body of literature on its use with a range of populations. As a result of this, four different statistics for the instrument's test-retest reliability were gathered in a literature review by Bagby, Ryder, Schuller and Marshall (2004). The arithmetic mean of these numbers is 0.9 which is the statistic used to calculate the RCI and clinical cutoff statistics. Mean and standard deviations for an unimpaired healthy community sample was found in Zimmerman, Chelminski and Posternak (2004), along with the same statistics for a clinical group of psychiatric patients from a study by de Jonghe and colleagues (2004). The use of these numbers resulted in an RCI of 6 being computed (i.e., a drop of 6 points on the HRSD is indicative of reliable improvement). It should be noted that a number of issues have been raised concerning the psychometric validity and reliability of the HDRS, amongst them, the idea that the instrument is so conceptually flawed as to be useless (Bagby et al., 2004). Additionally, there has been criticism of the reliability of the instrument, with poor inter item reliability being a particularly salient issue.

Given the very small number of individuals exhibiting full rehabilitation (see below), the decision to measure the onset of remediation as opposed to its completion was taken, and as such the survival analysis presented in the current study concerns time until onset of remediation/rehabilitation (as measured by a surpassing of the RCI) as opposed to its completion

(as measured by a crossover into the functional range). Due to the comparatively poor psychometric properties of the HDRS, the BDI was chosen as the primary measure of remediation in the current study, however separate survival analyses were performed using each instrument in order to provide multiple measures of remediation. Since these analyses were performed separately from one another, participants were required to evidence scores in excess of the RCI for either measure in order to be classified as having begun remediation.

Measuring Rehabilitation

A number of instruments were identified within the dataset which were theoretically analogous to the proxy measures of the processes of rehabilitation and remediation. Despite these measures being theoretically appropriate for analysis, a number of limitations became evident during data analyses that resulted in eliminating some of the available measures. In terms of measures of rehabilitation, the Katz adjustment scales-relative report form (Katz and Lyster, 1963) was eliminated from the data analysis due to the lack of measurement data at 4 weeks into treatment and again at 12 weeks into treatment. Because of these gaps in the data, the utility of the instrument to track the process of rehabilitation was deemed to be inconsistent with the other measures and lacking in depth of measurement, thus, the instrument was excluded from the analysis. The General Life Functioning scale (GLF; Elkin et al., 2005) was also included in the original TDCRP data and was considered as a measure of rehabilitation, however the instrument was also not administered at weeks 4 and 12 of treatment and thus, was also excluded from the final analysis.

The Social Adjustment Scales (Weissman and Paykel, 1974) was another instrument included in the TDCRP data that was considered as a viable option for a proxy measure of rehabilitation, however ultimately this measure was also excluded from the data analysis. The

reasons for this are twofold: 1) given the truncated nature of the range of scores available, the calculation of a clinically meaningful RCI and normal range of functioning is not feasible (i.e., a change of one point on a seven point scale may not be meaningful in that it obscures the nuances of change that a instrument with more levels of gradation captures). Logarithmic transformation was considered, however given that the data must then be transformed again to a dichotomous variable for survival analysis, this was avoided. 2) The subscales included in the instrument would not have provided an adequate measure of rehabilitation unless they were combined in a composite score, which would have then entailed yet another subsequent transformation.

The Global Assessment Scale (GAS) of the SADS-C was ultimately chosen as the proxy measure of rehabilitation to be included in the survival analysis performed on the TDCRP data. In order to analyze the data yielded by the instrument means for both clinical and community samples were found in the literature. Specifically, Johnson, Magaro and Stern (1986) investigated the use of the SADS-C as a measure of symptom severity using samples of depressed individuals and community controls. The data from this study was used to determine the RCI for the GAS which indicated an increase of 5.479 points on the 100 point scale was needed to be deemed reliable clinical change. This RCI was also calculated based on the reliabilities reported in Rogers (2001) which indicated that the test-retest reliability coefficient of the instrument was over 0.8. Given that the exact statistic could not be found from the original manual or in subsequent research, 0.8 was used as a conservative estimate of the test retest reliability of the instrument. Additionally, the cutoff score for the GAS was determined to be 83.58 (assuming unequal variance between the groups) or 70.5 (assuming equal variance), with scores above these points considered to be evidence of normal functioning.

A small number of individuals in the CT and IPT groups evidenced scores above either of the cutoffs determined previously, with only one participant from either treatment group evidencing scores in the functional range at completion of treatment. Given this small number of rehabilitated individuals, if the criterion used to determine rehabilitation was strictly adhered to (i.e., both RCI and crossover in normal functioning), the survival analysis would have been considerably underpowered. Therefore, the decision was made to classify rehabilitation as having occurred from its starting point (i.e., the first increase of 5.479 points or more) as opposed to its end point (i.e., an increase of 5.479 points and a crossover into the functional range).

Chi-square Analyses

The data was initially subjected to a chi-square analysis to determine accuracy of the phase model for both groups. Chi-square analysis has been used previously in investigations of the phase model (Howard et al., 1993; Callahan et al., 2006). In keeping with this established approach, chi-square analysis was applied to the data set in order to investigate the applicability of the phase model (specifically remediation and rehabilitation) to the overall sample, regardless of therapeutic orientation.

These analyses compared the numbers of individuals who had evidenced a reliable change on proxy measures of rehabilitation and remediation at any given time. As outlined in Howard and colleagues' (1993) study, the chi-square procedure is a modified version of an analysis that allows for causal inference. It involves generating a 2x2 cross-classification table with dichotomized (presence/absence) rehabilitation and remediation variables on each respective axis. The off diagonal totals are then examined for adherence to the phase model (i.e., the number of individuals achieving remediation but not rehabilitation should always be higher than those achieving rehabilitation but not remediation for the phase model to be supported). The

chi-square analyses tested the model at each of the measurement points of the study, thus it compared dichotomized GAS scores from the SADS and BDI scores at four weeks, eight weeks, 12 weeks, treatment completion (16 weeks), six month follow-up, 12 month follow-up and 18 month follow-up.

The analyses provide inconsistent support for the phase model, with the phase model not being supported at four weeks into treatment (16 participants exhibited rehabilitation before remediation in contrast to the 10 who exhibited remediation before rehabilitation, which is in keeping with the phase model). This reversal of the phase model pattern was found to be statistically significant ($\chi^2(1, N = 86) = 12.231, p < 0.001$). However, at the next measurement point (eight weeks into treatment) the phase model was supported with more individuals following it than not (16 and 10 respectively). These differences were again found to be statistically significant ($\chi^2(1, N = 86) = 10.64, p = 0.001$). This pattern of inconsistent support for the model continues throughout the course of the study, with the model being supported to a statistically significant degree at 8 weeks, Week 12, treatment completion, and 12 month follow up. However the model was found to be statistically significantly non-supportive at Week 4, Month 6 and Month 18. Thus, it appears that the phase model appears to be a poor fit overall in terms of the current data.

Survival Analysis

The survival functions for both the measures of rehabilitation and remediation indicate that there are significant early gains in terms of both remediation (Figure 1) and rehabilitation (Figure 2) regardless of treatment orientation. Specifically, the proportion of participants beginning remediation is approximately 40% by the fourth week of treatment across both treatment conditions, with IPT showing a slightly larger proportion of early improvement than

CT. In terms of rehabilitation, the same pattern was observed across treatments, with rehabilitation beginning in approximately 50% of cases by Week 4, again with IPT exhibiting a slightly larger proportion of improvement when compared with CT. This finding is not in keeping with previous findings, especially the finding that rehabilitation and remediation appear to happen at virtually the same time.

The basis of the phase model of psychotherapy is that it is a time ordered and sequential model of improvement in which each phase is necessary for the next to occur, however the current data does not appear to support this notion, with rehabilitation occurring either at the same time as remediation or slightly before it. In order to elucidate this finding further, the survival analyses performed for both remediation and rehabilitation will now be addressed in more detail.

Survival Analysis for Remediation

A survival function for remediation patterns between treatment approaches was generated on the basis of the dichotomized BDI total scores (i.e., began remediation/not began remediation) as outlined previously. The function indicated that the proportion of participants in the IPT treatment group who exhibited remediation by Week four of treatment was 0.6, indicating that the majority of participants exhibited remediation by the first measurement point during treatment. This is contrasted somewhat with the finding that 45% of those assigned to the CT group exhibited scores indicative of remediation.

It should also be noted that all but five participants across treatment conditions (two in the IPT group and three in the CT group) showed evidence of clinically significant improvements of scores on the BDI. The vast majority of this improvement occurred within the first 8 weeks of treatment, regardless of treatment orientation.

The median time until remediation accounts for both censored (participants who never exhibited remediation) and uncensored (participants who exhibited remediation over the course of the study). The median remediation time for CT was 2.0, 95% CI [1.472, 2.528] (based on units of discrete time measurement), indicating that half of CT individuals exhibited remediation at Week 8 of treatment. The median time for the IPT group was also 2.0, 95% CI [1.657, 2.343] (Week 8 of treatment), which indicates that, contrary to the hypothesis set out in the earlier part of this document, individuals exhibited remediation at the same time as that seen in the CT group. The confidence intervals for these statistics overlap and thus there is no evidence that the two are statistically significantly different in terms of time of onset.

Cumulative hazard rates for each of the samples were also calculated as part of the survival analysis. Hazard rates can be seen as derivations of the survival functions in that where the survival function measures survivability over time in a gross way, the hazard rate is more concerned with dropout rates at any given time over the course of the study. As such the hazard rate has been defined as the probability that any given participant will have dropped out by the median point of a measurement period having entered that period as a member of the surviving portion of the sample. The cumulative hazard rates for both the IPT and CT groups displayed a similar trend for remediation, with both exhibiting a continual increase throughout the course of the study. The cumulative hazard rate provides more nuanced information about the pattern of a target event occurring at various points. Due to this hazard rate being cumulative in nature, the rate generated for the current study indicates that individuals across treatment conditions evidenced an ever increasing rate of event occurrence (remediation) over time, with the peak occurring at the end of the observation period. The hazard rate is a proportional measure of dropout and thus, the rate is a function of proportional dropout not absolute numbers. Given the

high rate of remediation in the early part of the study, as well as the low level of right-censoring, the hazard rate does little to elucidate the timing of remediation in the current samples. The small number of “surviving” (unremediated) participants in the latter half results in artificially inflated cumulative hazard rates in latter parts of the study, since a small number of participants remediating appears more significant in proportion to the overall level of survival.

The survival functions were subjected to chi-square tests in order to determine if they were statistically significantly different from one another. A number of different chi-square analyses are commonly used in the survival analysis literature, with the log-rank approach being selected for the current data set. The log-rank test assigns equal weight to all cases across the survival function, as opposed to weighting earlier cases more heavily (as the Tarone-Ware and Wilcoxon tests do). This test indicates that there is no statistically significant difference between the two functions ($\chi^2(1, N = 86) = 1.255, p = 0.263$) and as such there is no evidence that the process of remediation is significantly different based on treatment orientation.

The scores on the HDRS evidence a very similar pattern of remediation, with the key difference being that the log-rank chi-square performed on the respective survival functions for the treatments indicated a statistically significant difference between the two therapeutic orientations ($\chi^2(1, N = 85) = 3.862, p = 0.049$). The IPT group was observed to enter remediation before the CT group which is contrary to the results expected based on previous findings. This indicates that participants in the IPT group evidenced remediation more quickly than those in the CT group. This finding should be viewed cautiously, however given the poor psychometric properties of this instrument as discussed previously. Thus, there does appear to be evidence for the difference between survival functions based on treatment conditions, however it

is unclear whether this finding is the result of measurement error as the finding was only found using a measure that is psychometrically questionable.

As an additional assessment of the statistical significance of the differences of onset of remediation, an independent samples t-test was performed comparing the two groups in terms of time of onset of remediation. This analysis found that there was no statistically significant difference between the two treatment conditions ($t(84) = 1.217, p = 0.227$).

In summation, the survival analysis performed on the remediation data indicates that there is a quick and sharp decrease in reported symptoms across treatment groups early in treatment. Given the fact that improvement disproportionately occurs in the early parts of treatment, it appears that for the vast majority of participants remediation evidences early in treatment. It should be noted that the chi-square analyses performed on the BDI data indicates that the survival functions for each of the treatment conditions were not statistically significantly different. Based on these analyses, the null hypothesis for hypothesis H_{1B} was supported and thus, no difference in the pattern of remediation was observed between treatment orientations.

Survival Analysis for Rehabilitation

A survival function for rehabilitation patterns between treatment approaches was generated on the basis of the dichotomized SADS-C GAS scores (i.e., began rehabilitation/not began rehabilitation) as outlined previously. The functions indicated a significant improvement in GAS scores being observed within the first 4 weeks across both treatment groups, with 45% of those assigned to the CT condition exhibiting rehabilitation and 54.3% of those assigned to the IPT condition exhibiting a significant improvement in GAS scores. The median time until rehabilitation beginning was observed to be 4 weeks for those in the IPT group and 8 weeks for those in the CT group. This is similar to the pattern found in the remediation survival analysis,

with IPT evidencing an earlier onset of rehabilitation than CT did. This finding is in keeping with the hypothesis that rehabilitation will be observed in the IPT group at an earlier point than the CT group.

In keeping with the findings observed in the remediation aspect of the current study, the number of censored cases in terms of rehabilitation (i.e., individuals who moved through the entire study but never exhibited an improvement exceeding the RCI) was small with two participants in the CT group being censored and none from the IPT group being censored. Again it should be remembered that these numbers relate to the onset of rehabilitation, not the completion of rehabilitation (as determined by a significant improvement in score, as well as a crossover from the clinical to the normal range). Thus, while it is encouraging that almost all participants exhibited some level of rehabilitation, this should be couched in terms of the fact that no more than nine participants exhibited GAS scores in the functional range at any of the measurement times. This indicates that improvement appears to occur in almost all cases and this improvement occurs early for the majority of individuals, however a return (or indeed initial attainment) to a non-distressed level of functioning was relatively rare.

Chi-square analysis was carried out which compared the survival functions for both treatment conditions. The chi-square statistic that was chosen was the log-rank approach, which is the same procedure carried out with the remediation data presented above. The analysis evidenced no statistically significant difference between the two treatment groups in terms of onset of rehabilitation ($\chi^2(1, N = 86) = 1.988, p = 0.159$). This indicates that the pattern of rehabilitation onset is similar across treatment conditions.

Cumulative hazard rates were also generated in order to determine the moment to moment rate of rehabilitation onset and to determine whether there is a pattern to these changes

beyond that which the survival function can communicate. The cumulative hazard function for IPT exhibited a smaller amount of increases, but a relatively steep gradient, with the hazard rate terminating at month six of the study because all participants in the IPT group had exhibited rehabilitation onset. Thus, the cumulative hazard function for this group exhibits fewer points of increase, but a high magnitude of improvement at each of these points. In contrast, the cumulative hazard rate for the CT group exhibited similar significant proportional increases in the earlier parts of the study but the exhibited a significant plateau of this improvement rate. This shift in gradient is a function of the larger proportion of individuals in this group entering rehabilitation later than their IPT counterparts. Additionally, the larger number of censored cases in the CT group contributed to the lower cumulative hazard rate. These findings should again be interpreted within the context of the hazard rate being cumulative in nature, as well as proportional and as such, the conclusions that can be drawn regarding the hazard rate of the second half of treatment remains necessarily limited.

As an additional assessment of the statistical significance of the differences of time of onset of rehabilitation, an independent samples t-test was performed comparing the two groups for time of onset of rehabilitation. This analysis found that there was no statistically significant difference between the two treatment conditions ($t(84) = 1.48, p = 0.143$).

Based on these analyses, it appears that rehabilitation processes are not statistically significantly different across treatment orientation. While the median time of onset for rehabilitation is different, there is no evidence that the overall pattern of rehabilitation onset is different based on therapy orientation and thus the null hypothesis for H_{1A} is supported.

Conclusions regarding Sequence of Phases across Orientations

Overall the findings from the current study result in a rejection of hypothesis H_{1A} (Clients in the IPT condition will demonstrate reliable change within the rehabilitation phase before evidencing reliable change in the remediation phase). They also do not support hypothesis H_{1B} (Clients in the CT condition will demonstrate reliable change within the remediation phase before evidencing reliable change in the rehabilitation phase). Since these are both components of hypothesis H_1 (The pattern of change during therapy, as conceptualized in the phase model, will differ based on therapeutic approach), it is concluded that there is no support for this hypothesis. Thus, it is concluded that individuals do not progress through the phases in a different sequence based on treatment orientation.

Length of Remediation and Rehabilitation

In addition to the analyses outlined above, two t-tests were performed on the data to investigate if there existed differences between the IPT and CT groups based on total amount of time spent in each phase of the model. With this in mind the number of weeks that each participant displayed an improvement in excess of the RCI for each instrument was calculated. This improvement was calculated in terms of the difference between their initial intake scores and the scores observed at each measurement point. In terms of remediation, individuals assigned to the IPT condition evidenced a higher mean number of weeks of remediation ($M = 69.56$, $SD = 26.20$) than that observed in the CT condition ($M = 62.4$, $SD = 29.4$). This difference was not found to be statistically significant, and thus, there does not appear to be evidence that the length of time spent by each participant in remediation is different based on the therapeutic orientation of their treatment ($t(84) = -1.195$, $p = 0.235$).

In contrast to the findings regarding the length of time spent in remediation, the analysis of total time spent in rehabilitation indicated a statistically significant difference between the two therapeutic orientations ($t(84) = -2.001, p = 0.049$). The participants in the IPT group evidenced more time spent in rehabilitation ($M = 72.17, SD = 22.78$) compared to their counterparts engaged in CT ($M = 61.6, SD = 26.21$). This indicates that individuals within the IPT group evidenced more time spent involved in rehabilitation.

The current study therefore provides support for hypothesis H_{2A} (Clients in the IPT condition will remain in the rehabilitation phase for significantly more sessions than clients in the CT condition) but not H_{2B} (Clients in the CT condition will remain in the remediation phase for significantly more sessions than clients in the IPT condition). Thus, these findings provide partial support for H_2 (The number of sessions associated with each phase during therapy will differ based on therapeutic approach). The null hypothesis for H_2 , was therefore partially supported and it is concluded that length of time spent in rehabilitation/remediation does not appear to change as a function of therapeutic orientation.

Figure 3. Boxplots illustrating the range of total number of weeks spent in remediation across therapy orientations.

Figure 4. Boxplots illustrating the range of total number of weeks spent in rehabilitation across therapy orientations.

CHAPTER V

DISCUSSION

The results of the current study evidenced inconsistent support for both of the primary hypotheses investigated, thus, neither hypothesis was fully supported. Participants assigned to the interpersonal therapy (IPT) condition were not found to evidence improvements in rehabilitation before remediation, however they did spend a greater amount of time within the rehabilitation phase of treatment. The cognitive therapy (CT) group did not evidence significantly more time spent in remediation or an earlier onset or different pattern of onset for remediation. Overall, the sample evidenced a non-significant trend towards entering rehabilitation before remediation. It was therefore concluded that the sample, regardless of therapeutic orientation, entered remediation and rehabilitation simultaneously. While there does seem to be some unique processes of treatment occurring within one of the therapeutic orientations, the pattern of this is apparently not generally consistent with the theory put forth throughout this paper. In order to account for this and identify possible explanations for these findings it is useful to discuss each hypothesis independently of the other.

Difference in Sequence of Phases

The first primary hypothesis was that the sequence of phases would be different across therapeutic orientations. This was not found to be the case, with remediation and rehabilitation occurring at essentially the same time within both CT and IPT. This indicates that whilst IPT and CT have purportedly different focuses within treatment, the process (in terms of improvement) of these treatments apparently remains similar. According to the current results, these processes involve an increase in general functioning, as well as a simultaneous decrease in symptom distress and severity. Thus, whilst the session to session focus of CT is very much on the

alleviation and lessening of symptoms, this does not seem to interfere with the process of improvement in functioning, with both occurring simultaneously. The same result was found for the IPT group, despite its different theoretical focus.

Ultimately, the findings (in terms of onset of improvement) from the current study indicated no significant difference between IPT and CT, despite the different focus of each treatment. The findings from this study consistently indicated that, overall, the entire sample followed neither the theoretical phase sequence set out by the interpersonal theory, nor that set out by cognitive theory (as conceptualized using the phase model). Both the chi-square analysis and the survival analysis indicate inconsistent support for the phase model, presenting evidence that treatment (regardless of orientation) appears to result in rehabilitation and remediation beginning to occur simultaneously.

Both IPT and CT groups evidenced an earlier onset of rehabilitation than remediation, therefore lending some support the IPT formulation of the phases. This finding also contradicts the traditional phase sequence observed previously. It should be noted, however that the confidence intervals for each of the treatment orientations for both phases all overlap, indicating a simultaneous onset of remediation and rehabilitation, regardless of treatment orientation. The importance of this overall finding will be discussed following an exploration of these findings for the stated hypotheses of the study.

These findings indicate that there is no significant difference between the groups in terms of time of onset of remediation/rehabilitation. This may therefore be indicative of a common focus on both decreasing symptoms and improving functioning across conditions. If this is indeed the case, it appears to be evidence for the importance of common factors, at least in the early parts of therapy. Given that the two therapies ostensibly target different domains for

improvement, it is puzzling that both evidence a simultaneous onset of improvement across phases. It may, therefore, be the case that the two processes of rehabilitation and remediation are not discrete and separate processes, but are instead intertwined and perhaps even mutually dependent, occurring within the same timeframe as one another.

Difference in Duration of Phases

The findings regarding the length of time spent in each phase appear to be slightly more coherent in the context of the hypotheses set forth in the current study. The data indicates that individuals undergoing IPT evidenced a significantly greater time engaged in rehabilitation than those assigned to the CT group. This appears to indicate that the rehabilitative focus of IPT results in an at least somewhat different pattern of improvement from that found in CT. The counterpart finding indicated no corresponding difference between IPT and CT groups in terms of length of time spent in remediation. Both groups were found to spend essentially the same amount of time engaged in the remediation phase.

The fact that there was a significant difference found between the groups on the duration of rehabilitation indicates that there is likely some difference in terms of a continuing focus within therapy. This difference appears to be impacting the amount of time participants are spending in each stage. Given the existence of this difference, a possible explanation for this finding is that whilst both treatments elicit similar amounts of time in remediation, the rehabilitative focus of IPT is adding something else to the therapeutic milieu which is resulting in more sustained periods of rehabilitation. This difference may be an artifact of the sequential/hierarchical nature of the phases, with rehabilitation representing a “higher order” process of improvement, which is built upon remediation. As such, it appears to be the case that IPT’s focus on functioning appears to elicit a similar duration of remediation as CT, whilst

eliciting longer durations of rehabilitation. It should be noted, however that previous investigations of this dataset indicated a better overall outcomes for those in the IPT group and this finding may be an artifact of this higher level of overall efficacy (Elkin et al., 1989).

Participants in the current study exhibited low levels of clinically significant improvement (as defined by an improvement of scores into the non-clinical range). As a result of this, no statistically useful data concerning the point at which participants finish each phase of improvement. As a result, it is conceivable that rehabilitation may take more time to complete than remediation, and thus, the fact that it starts earlier may merely be a function of the phase taking longer to complete overall. Even if this is theoretically the case, it still does not appear to be in keeping with the phase model of psychotherapy which indicates that each of the phases are successive and thus occur one at a time and do not happen in parallel with one another. The data from the current study therefore casts doubt upon the veracity of the phase model in general. These results should be considered in the low rate of return to non-clinical levels of functioning and thus, the conclusions that can be drawn from this may be necessarily limited.

There are a number of different ways to interpret these findings. It could be the case that IPT's focus is more consistent than that of CT in that rehabilitation occurs for a longer period of time within IPT. The lack of a similar finding related to remediation and CT could therefore be indicative of a more inconsistent focus which does not concentrate as solely on the remediation of symptoms as cognitive behavioral theory may imply. Alternatively, it may be the case that the mechanism of change (the "active ingredient") within therapy may be a focus on the lessening of symptoms, which is common to all therapeutic orientations, regardless of purported focus of any specific approach to treatment. Thus, remediation is observed to a similar degree across treatments, with alternative styles of progression through phases being a function of additional

focuses of different therapies beyond remediation. In keeping with this view, it may then be said that CT represents a core form of therapy in which the focus on remediation is paramount, whereas other therapies expand from this focus while retaining its recognition of the importance of symptom reduction. These conclusions should obviously be cautiously considered in the context of this study being one of the first to utilize the phase model to determine the existence of process differences across treatment orientations.

Limitations of the Current Study

The current findings should also be couched in terms that recognize the limitations of the current dataset and the methods and manner in which this was collected. The TDCRP dataset was the first large scale RCT that investigated the outcomes of two different approaches to therapy (Elkin et al., 1985). As such, the data was primarily collected to assist in outcomes research as it related to the efficacy of two forms of psychotherapy, as compared to pharmacotherapy for the treatment of Major Depressive Disorder. Given that the data was collected before the phase model was proposed by Howard and colleagues (1993), the instruments addressing process based aspects of therapy are proxy measurements for each of the phases of improvement. As such there exists an inevitable disconnect between the information collected and the information needed. This issue was minimized through the attempted use of multiple measures of symptom distress (remediation) and functioning (rehabilitation). As outlined previously, the final decisions regarding which instruments to use were guided both by theoretical congruence with each of the phases, as well as the practical limitations of the instruments and the manner in which they were collected.

One issue that is salient to sources of potentially confounding measurement error is that of who is doing the evaluating. In the case of the BDI it is the participant themselves who

complete the instrument, however it is a clinical evaluator or therapist who completes the SADS-C. The differing viewpoints of the evaluators between these two instruments may contribute to measurement error which would then obscure the true processes and characteristics of rehabilitation/remediation underlying improvement in therapy. Due to the constraints of using an archival dataset, this issue is one which cannot be fully resolved, however it is worth noting that scores recorded on the HRSD evidenced a similar progression through remediation as those recorded on the BDI. This is relevant to the issue of differing points of view confounding findings due to the fact that the HRSD is completed by a clinical evaluator and is therefore similar to the SADS-C in this respect. It would therefore appear that using self-reported versus other-report measures does not appear to confound the findings across phases. This conclusion was reached in the context of the findings within the current study and as such, should not be generalized to other studies in which this self/other-report issue arises. Again this finding should be noted in the context of the poor psychometric properties observed for the HRSD. Nevertheless, this does provide evidence that, despite the differing sources of information, the BDI and SADS-C provide consistent information regarding each of the phases.

One instrument that could potentially serve as both a measure of remediation and rehabilitation is the SADS-C. This instrument assesses both symptoms (through the use of symptom specific subscales) and functioning (using the GAS). There is thus, an apparently strong case for the use of the measure as a proxy measure of both remediation and rehabilitation. This was considered, however it was ultimately judged not to be feasible for a variety of reasons. Firstly, the subscales on the SADS were not designed to be combined across one another – there is no single “severity of mood disorder” score that is generated by the SADS-C. Due to the, at times, highly heterogeneous nature of the mood symptoms addressed by the SADS, it makes no

theoretical sense to attempt to combine these subscale totals. Secondly, there is very little psychometric evidence that is supportive of taking these symptom scores out of the context of the other symptom scores, and thus, the use of these scores is discouraged for the current study. Thirdly, the range of scores offered for each subscale of the SADS-C are each very truncated and therefore, there are problems with assessing minor changes over the course of treatment. Conversely, the GAS scale has exhibited good psychometric properties when used in isolation from the rest of the instrument and was the precursor to the Global Assessment Scale of functioning, which has gained widespread acceptance as a part of DSM-based multi-axial formulation. Thus, this scale was utilized as a proxy measure of rehabilitation, with the rest of the instrument not being utilized as a proxy measure of remediation.

When conceptualizing these findings, it should be kept in mind that the current study constitutes a partial study of the phase model, in that two of the three component phases of the phase model were assessed. Remoralization (the first phase of the model) was not assessed in the current study for two reasons. Firstly, the TDCRP dataset did not include measures that could justifiably be considered proxy measures of the construct of remoralization. In addition to this, remoralization was not considered to be theoretically fundamental to either of the therapies utilized in the TDCRP. Therefore, the inclusion of remoralization within the current study was not thought to be feasible from a theoretical or practical point of view. Given that the latter two stages of the model were theorized to be conceptually central to IPT and CT, it follows that a replication of the current study that would address each of the phases of the model would include a therapy in which remoralization would constitute a central component of the treatment. To this end, Hope Therapy (Snyder, 2000) is identified as a treatment that would theoretically focus on remoralization and, as such, would likely be a useful treatment to include in subsequent studies

aiming to determine the existence of alternate phase progressions/durations across different treatment orientations.

It should be noted that the TDCRP dataset has been used numerous times as an example of the efficacy of psychotherapy, with the conclusion being that psychotherapy is effective at eliciting clinically significant improvement and at fostering a return to normal functioning for many patients (Elkin et al., 1989). Whilst the current study does evidence effectiveness for both therapies, there is a significant difference between the current findings and those discussed in previous papers using this data set. Elkin and colleagues (1989) reported recovery rates of 65% and 70% for the CT and IPT groups respectively. This was based on a BDI total score of less than or equal to 9, which the authors chose based on the cutoffs suggested by Beck and colleagues (1960). This cutoff is contrasted with those determined by Seggar and colleagues who used RCI methodology to determine other possible cutoffs of 14.29 and 4.08 depending on the level of expected functioning. With these cutoffs in mind, the rate of remediation for the CT subsample was 85% for the less lenient cutoff and 65% for the stricter one. The percentages exhibiting full remediation within the IPT group were 91.3% and 67.4% respectively. While these numbers are largely in keeping with the findings from the Elkin paper, there does exist other measures of recovery, specifically the GAS which measures functioning as well as symptom reemission. Using the cutoff of 83.5 as an indication of normal functioning on the GAS (as outlined previously), 7.5% of the CT sample and 10.9% of the IPT sample exhibited completed rehabilitation at 18 months (these numbers drop to 2.5% and 2.1% for status at termination across the respective treatments). The significant difference between these two aspects of recovery casts some uncertainty over the symptom-based definition of recovery that has often been a hallmark of outcome studies. As such, the current paper provides a new

perspective on data which has been utilized repeatedly to illustrate the efficacy rate of psychotherapy, and questions the veracity of some of the conclusions which have been made based on this research.

When discussing findings from Randomized Controlled Trials it should always be recognized that whilst standardization and treatment fidelity should always be the goal, the day to day process of therapy may render this standard difficult to reach (Moncher and Prinz, 1990). The importance of recognizing the treatment process as a dynamic and interactive process and the impact this has on treatment fidelity should always be kept in mind when addressing RCT research. This is salient to the current study in that both therapies appear to elicit a similar pattern of change, despite the differences between therapeutic techniques which are purportedly being utilized. Treatment fidelity (or the lack thereof) is therefore of great importance. Previous research has suggested that, historically, treatment fidelity within manualized treatment was often overlooked, especially within an RCT framework (Moncher and Prinz, 1990). There exists greater current methodological rigor and thus this difficulty with treatment fidelity has greatly lessened. This deviation from the manual is a potentially confounding influence in the current study. Given the fluid nature of therapy, the ability of any therapist to maintain fidelity to any orientation has been questioned, specifically the role of the client as an active agent in therapy who can control and change the course and focus of therapy through their cooperation or resistance to specific interventions (West, Novotny and Thompson-Brenner, 2004). Previous research by Goldfried, Castonguay, Hayes, Drozd and Shapiro (1997) indicated that when administering a manual-driven treatment, the session to session focus of both CT and IPT were markedly different from one another; the CT sessions tended to focus on the future, whereas the IPT treatment focused primarily on the individual's past. Thus, there exists a difference of

opinion and evidence regarding the level to which treatments can be adhered. If we assume that the therapy processes within the current study were practiced as outlined in the treatment manuals, the similarities evidenced between the treatment processes remain a difficult finding to interpret. These findings coagulate into a more coherent overall concept if we re-examine some of the assumptions underlying the theories that guide the current study.

Co-occurring Phases and the Phase Model

Given that there was little evidence supporting the hypothesis that there exist different mechanisms of action underlying the process of therapy, there is another, potentially highly significant finding contained within these analyses. The majority of previous research regarding the phase model indicates that the progression through the stages follows a largely invariant sequence (Fowler et al., 2004; Schwartz, 1997). These findings are in contrast to the current ones which indicate that rehabilitation appears to occur simultaneously with remediation, thus casting doubt on the invariance of the phases, as well as the notion that each successive phase cannot start without the previous one concluding.

Both the chi-square and survival analyses indicate that there was no significant difference in terms of onset of rehabilitation or remediation, indicating that both appear to happen at the same time, regardless of therapeutic orientation. As mentioned previously, this co-occurrence of phases may indicate that the phases are more intertwined than previously thought. Previous formulations of the phase model have characterized the phases as being sequential, with each being concerned with a different aspect of therapeutic improvement. There is a precedent for the existence of different sequences of phases in the literature, with alternative sequences of phases being observed in approximately 37% of one of the sample's studied (Stulz and Lutz, 2007).

There is, therefore, a precedent for individuals moving through the phase model in an atypical way.

The fundamental difference between these previous findings and the current study is that even though previous findings have identified a somewhat variable sequence of phases, the fact that the phases were sequential was continuously supported. The current study indicates that the phases may not be sequential and discrete. The phases may in actuality represent different aspects of the improvement process that are not separate from one another, but rather different focuses of an overarching continual process of improvement. This interpretation would then change the model from a phase based temporal one, to an aspect based one which is not dependent on sequential processes, but rather simultaneous ones.

Previous research has indicated that while individuals obviously enter each phase, they can also evidence what Anderson and Lambert (2001) termed “backslide,” which involves beginning one of the phases and then undergoing a deterioration in the area of focus for that phase, thereby exiting the phase without improvement. This may be indicative of the fluid nature of the phases which is supported by the current evidence. This can perhaps best be explained by using a hypothetical example in which a client begins therapy and proceeds through the second (remediation) and third (rehabilitation) phases as dictated by the phase model. Given the observed phenomenon of backslide, it is possible that the individual will be actively engaged in the process of rehabilitation when they exhibit a remanifestation of their symptoms, thereby reactivating the phase of remediation. Given that rehabilitation continues, the individual is now in a situation in which two phases are occurring simultaneously. Thus, it may be the case that all three processes occur throughout therapy, with each phase waxing and waning over the course of therapy, as opposed to being concluded before the onset of the next one. Put simply, the phases

are not happening one after another but instead at the same time. The current findings appear to support this interpretation of the model.

This interpretation of the model may also account for previous findings while providing a framework in which the current findings remain coherent and understandable. Essentially, the aspect interpretation of the model allows for each phase to occur at different points in treatment, with some becoming more salient at different points in treatment. This alternate interpretation therefore removes the absolutist concept of the phases being mutually exclusive, while allowing a general (but by no means ubiquitous) pattern to emerge. The finding that remoralization typically precedes remediation which in turn precedes rehabilitation may be an artifact of each of these areas of focus being more salient at different points in therapy, with the aspect interpretation of the phase model allowing for each phase to occur simultaneously. Basically, each phase may be occurring at any given time in treatment, but the most salient one will change over time, with symptom reduction perhaps being the focus of therapy during the middle portion of treatment, and rehabilitation being attended to later. There is little that is theoretically incongruent with past theory and research about this interpretation of the model, and thus it represents a succinct and conceptually congruent account of findings related to the phase model, both from previous investigations, as well as the current one.

Conclusions

In terms of the impact of these findings in the greater scheme of psychotherapy research (especially as it relates to process and common factors research), it is clear that the phase model offers a unique perspective on investigating the processes underlying psychotherapy. The finding that there seems to be minimal differences between theoretical orientations on onset and progression of the phases is one of significant importance in the context of the ongoing dodo bird

debate. If this finding is indeed accurate and replicable, it provides support for the argument that “good therapy is good therapy,” regardless of the therapeutic model one works within. This common factors approach has been much vaunted in certain parts of the literature on therapeutic outcomes and efficacy research (Messer and Wampold, 2002), however the current study also appears to support the dodo bird verdict in terms of psychotherapy process.

The phase model generally presents each of the component phases as mutually exclusive and qualitatively different, separate processes. The current findings cast doubt on this conclusion, however. Ultimately, it may not be possible to parse out improvements in functioning from reductions in symptoms due to these being two processes representing different component parts of the same underlying process. If this is indeed the case, it is important to recognize the continuous and simultaneous nature of each of the processes of the phase model in order to facilitate recovery. Thus, the focus on each of the phases in a sequential manner may not necessarily be advisable, with a more flexible and fluidic focus possibly being more useful for clients at all stages of recovery. The possibility that clients may manifest improvement associated with any of the phases at any point in treatment should thus be attended to and accounted for by clinicians throughout the course of therapy.

The impact of this conclusion is wide ranging. In terms of training, if the various schools of therapy are equally efficacious and appear to elicit the same underlying pattern of changes, it would appear that concentrating on orientation specific techniques may not be a useful utilization of training resources. This time may be better utilized by concentrating on the common factors across therapies which have been found to be important in eliciting change such as therapeutic rapport, insight, understanding, reinforcement, relaxation, desensitization etc. (Garfield, 1995). Additionally, instead of continuing to concentrate as thoroughly on specific techniques and

theories of individual approaches to therapy, a shift towards teaching emerging professionals the importance of the impact of common factors and other aspects of therapy that are orientation non-specific (such as findings related to therapy expectancies) may be advisable in light of the current findings.

In summation, the current study found few significant differences in terms of progression through the phase model across different therapeutic orientations. This finding appears to lend support to the importance of common factors in therapy, especially early in treatment and as such is evidence in favor of the dodo bird verdict. The other key finding of the study indicates that the widely supported phase model of therapy may not be composed of discrete, exclusive sequential phases, but is instead composed of more nebulous, overlapping and continuous processes which compose the overall process of therapeutic improvement.

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