Comprehensive Profile of Adult Outpatient Psychotherapy Treatment Responders, Nonresponders, and Negative Responders in a Naturalistic Treatment Setting

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ADULT OUTPATIENT PSYCHOTHERAPY TREATMENT RESPONDERS, NONRESPONDERS, AND NEGATIVE RESPONDERS IN A NATURALISTIC TREATMENT SETTING

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Dissertation Approval

This is to certify that the thesis presented to us by Anya Genieser-Derosa on the 22nd day of January, 2002, in partial fulfillment of the requirements for the degree of Doctor of Psychology, has been examined and is acceptable in both scholarship and literary quality.

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Abstract

Since its inception, the effectiveness of psychotherapy as a treatment for psychological distress has been challenged vigorously. During the past 5 decades, increasingly sophisticated research studies have demonstrated psychotherapy effective in treating a variety of psychological disorders in the majority of individuals who avail themselves of treatment. Moreover, despite fierce competition among proponents of various psychotherapy models attempting to prove their model of choice most effective, research findings suggest the major models of psychotherapy are all equally effective in treating most individuals. Some have therefore shifted their research focus to determining the factors common to major psychotherapies that promote treatment success.

Few, however, have examined the contributing factors involved in treatment failure. The present study investigates the factors predictive of treatment nonresponse (failure to change significantly from baseline global functioning, as a measure of overall functional psychological status) and negative response (deterioration from baseline global functioning) in a large sample of adult (ages 18-65) psychotherapy outpatients treated in naturalistic settings. Predictor variables were selected and drawn from archival questionnaire data monitoring changes in 900 patients' functioning in several specific and one global domain. The patient sample was randomly divided into two groups. Scores of Group 1 on predictors were submitted to a discriminant
function analysis, and a predictive model for treatment outcome group classification was successfully derived. The veracity of the model was then substantiated with the data of participants assigned to Group 2. Results indicated that the linear combination of patient’s scores on specific predictor variables successfully predicted the assignment of patients to one of three discrete outcome groups – treatment responder, treatment nonresponder, and negative treatment responder. Findings suggest a small group of individuals is at high risk for negative treatment response. Others are highly likely to improve during treatment; however, an equal number are likely to experience no significant change during the treatment process. Further investigation into the risk factors involved in treatment nonresponse and negative response is key to a complete understanding of this phenomenon, to creating a method for the early identification of those at risk, and to developing specific interventions to increase the rate of treatment success in those at risk of experiencing suboptimal treatment outcome.
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CHAPTER 1 — INTRODUCTION

In 1952, Eysenck reached the bold conclusion that psychotherapy was no more effective in treating individuals than spontaneous remission alone. This conclusion spawned not only heated debate (Bergin, 1971; Hollon, 1996; Hubble, Duncan, & Miller, 1999b; Rachman & Wilson, 1980; Shapiro & Shapiro, 1982a; Smith & Glass, 1977), but also large amounts of research activity focused on either supporting or debunking Eysenck’s conclusion (Bergin; Hollon; Hubble et al., 1999b; McNeilly & Howard, 1991; Ogles, Anderson, & Lunnen, 1999; VandenBos, 1996). Although some still question whether the statistically significant improvements demonstrated in clinical efficacy research trials equate to clinically significant changes in clients being treated in the field (Jacobson, 1995), by the mid-1980s numerous treatment outcome studies and meta-analyses of such studies had demonstrated to the satisfaction of most that many people seeking psychotherapy benefited from treatment (Andrews & Harvey, 1981; Glass & Kliegl, 1983; Landman & Dawes, 1982; Prioleau, Murdock, & Brody, 1983; Shadish et al., 1997; Shapiro & Shapiro, 1982a; 1982b; Smith & Glass; Smith, Glass, & Miller, 1980). Since then, the focus of research has shifted to investigating which psychotherapy treatment models work best overall, and which treatments work best for which clients (Dowd, O’Brien, Cohen, Linehan, & Nezu, 1999; Paul, 1967a; Wilson, 1996; Wilson & Rachman, 1983).

In terms of which psychotherapy treatment models are most effective, results of meta-analytic studies indicate that, for the most part, all of the major psychotherapy
treatments result in approximately the same amount of benefit to most clients. In other words, research results largely indicate that the verbal and behavioral therapies are equally effective, with the exception of certain specialized cognitive-behavioral techniques developed for specific, discrete psychological disorders (Barrett & Wright, 1984; Bergin & Garfield, 1994; Beutler, 1991; Beutler, Machado, & Neufeldt, 1994; Elkin, 1994; Glass & Kliegl, 1983; Goldfried & Wolfe, 1996; Gomes-Schwartz, 1978; Hollon, 1996; Horvath & Luborsky, 1993; Jacobson, 1995; Lambert & Bergin, 1994; Lambert & Okiishi, 1997; Lambert, Shapiro, & Bergin, 1986; Luborsky, Singer, & Luborsky, 1975; Martin, Garske, & Davis, 2000; Miller, Hubble, & Duncan, 1995; Norcross & Newman, 1992; Orlinsky, Grawe, & Parks, 1994; Orlinsky & Howard, 1986; Parloff, London, & Wolfe, 1986; Rounsaville, O’Malley, Foley, & Weissman, 1988; Shapiro & Shapiro, 1982b; Sloane, Staples, Cristol, Yorkston, & Whipple, 1975; Smith et al., 1980; Smith & Glass, 1977; Weinberger & Eig, 1999). While this finding continues to be debated by some theorists at present (Barlow, 1996; Barrett & Wright; Bergin & Garfield; Beutler; Hollon; Jacobson; Glass & Kliegl; Lambert & Bergin; Lambert & Okiishi; Lambert et al., 1986; Miller et al., 1995; Parloff et al., 1986; Shapiro & Shapiro, 1982b; Smith et al.; Whiston & Sexton, 1993; Wilson & Rachman, 1983), many other theorists have begun to generate a “common factors” psychotherapy model including the effective treatment processes that all psychotherapy treatment models share (Asay & Lambert, 1999; Grencavage & Norcross, 1990; Hubble, Duncan, & Miller, 1999c; Martin et al., 2000; Lambert & Okiishi; Murphy, Cramer, & Lillie, 1984; Orlinsky et al., 1994; Orlinsky & Howard; Snyder, Michael, & Cheavens, 1999;
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Tallman & Bohart, 1999). These theorists posit that the "common factors" are the aspects of psychotherapy that promote healing in individuals, regardless of technique or the theoretical underpinnings proposed in specific psychotherapy models (Grencavage & Norcross; Hubble et al., 1999c; Orlinsky et al.). Research studies aimed at identifying and empirically supporting a "common factors" model have become almost as prevalent as studies comparing the various psychotherapy models and their differential effectiveness, both in general and as applied to specific disorders (Bergin & Garfield; Grencavage & Norcross; Lambert & Bergin; Lambert et al., 1986; Parloff et al.).

Numerous studies investigating the "common factors" shared by all of the major treatment models have examined the treatment variables that contribute to success in treatment (Lambert & Okiishi, 1997; Murphy et al., 1984; Weinberger & Eig, 1999). Researchers have typically defined "treatment success" as a statistically significant improvement in post-treatment psychological status over pre-treatment psychological status on client-reported or therapist-determined target symptoms and/or global functioning (Mintz, Luborsky, & Christoph, 1979). One of the most important factors in the "common factors" model is the patient (Hubble et al., 1999c; Lambert, 1991) – in numerous studies, researchers have found that client variables play an important role in positive treatment outcome (Asay & Lambert, 1999). Overall, research indicates that approximately 40 percent of positive treatment outcome can be attributed to patient factors, 30 percent to the therapeutic alliance (especially the patient's perception of the therapeutic relationship), 15 percent to expectancy effects –
the instillation of hope for improvement as a result of treatment, and 15% to therapeutic technique factors (Lambert, 1992).

While research findings demonstrating the overall effectiveness of psychotherapy and the identifiable factors that contribute to success in treatment are impressive, results nonetheless indicate that a sizeable proportion of patients in psychotherapy do not demonstrate measurable self-reported or therapist-determined improvement from pretreatment psychological status in problems targeted for treatment (Davies-Osterkamp, Strauss, & Schmitz, 1996; Mohr et al., 1990; Najavits & Strupp, 1994; Truax et al., 1966; Whiston & Sexton, 1993). It is estimated that between 3% and 12% of patients experience a statistically significant worsening from their pretreatment psychological status on selected target measures while in treatment (Davies-Osterkamp et al., 1996; Lambert et al., 1986; Mintz et al., 1979; Mohr et al.; Najavits & Strupp; Orlinsky & Howard, 1980; Whiston & Sexton); such patients will hereafter be called "negative responders" (Mohr et al.). Another substantial percentage of patients simply remain at their pretreatment psychological status (Lambert et al.; Orlinsky & Howard) despite treatment (for example, in Mintz et al., 10% of patients in psychodynamic treatment showed no change; in Davies-Osterkamp et al., 27% of patients in psychodynamic treatment showed no change in psychological status; in Mohr et al., 29% of patients treated with cognitive-behavior therapy showed no change; and in Truax et al., 50% of patients in "brief psychotherapy" treatment providing "low" levels of therapist warmth, empathy, and positive regard showed either no change or deterioration in psychological status). Patients demonstrating no
statistically significant positive or negative response to treatment will hereafter be called "nonresponders" (Mohr et al.).

Few researchers have studied the phenomenon of treatment nonresponse and negative response (Mohr, 1995; Mohr et al., 1990). A possible explanation for the small volume of clinical literature regarding these phenomena is that the most prominent discussions of "negative effects," by Bergin (1963, 1966, 1967, 1970, 1971, 1980), alleged that treatment caused deterioration in patient's pretreatment level of functional psychological status – an allegation for which there has never been any causal, or even correlational, evidence (Franks & Mays, 1980; Mays & Franks, 1980, 1985a, 1985b). This controversial stance may have caused all but the staunchest of Bergin's opponents to shy away from examining the phenomenon in further detail (Franks & Mays; Mays & Franks, 1980, 1985a, 1985b).

This study will investigate the phenomena of treatment nonresponse and negative response in a naturalistic outpatient psychotherapy setting. Treatment outcome status will be judged according to the individuals' level of response to treatment by the 26th session, based on the finding that "about 75% of patients have shown some improvement" in treatment "by 26 sessions" (Howard, Kopta, Krause, & Orlinsky, 1986, p. 163). Thus, treatment responders will be defined as individuals who achieve a statistically significant improvement in client-rated global functioning (Mintz et al., 1979) by the 26th session (Howard, et al., 1986). Treatment nonresponders and negative responders will be identified according to the converse of Howard et al.'s definition of treatment responders (K. I. Howard, personal communication, September,
Therefore, those who do not demonstrate statistically significant symptom improvement or worsening over baseline in client-rated global functioning by the 26th session, and remain in treatment, will be classified as “treatment nonresponders” (K. I. Howard, personal communication, September, 1999; Howard et al.; Mintz et al.; Najavits & Strupp, 1994; Truax et al., 1966). Those who demonstrate a statistically significant decline in functioning from baseline in client-rated global functioning by the 26th session, and continue in treatment, will be defined as “negative responders” (K. I. Howard, personal communication, September, 1999; Howard et al.; Mintz et al.; Najavits & Strupp; Truax et al.). Drawing from a broad range of literature, hypotheses regarding the variables relevant to the treatment nonresponse and negative response phenomena will be generated and tested. The resulting clinical profile may increase the likelihood of identifying the specific treatment needs of both treatment nonresponders – those who remain at a suboptimal level of emotional and behavioral global functioning and simply do not improve – and negative responders – those whose psychological condition actually deteriorates during the course of treatment (Mohr, 1995).
HISTORICAL OVERVIEW OF THE DEBATE OVER PSYCHOTHERAPY EFFECTIVENESS

In a now-famous study comparing patients treated with psychotherapy to those who were untreated, and whose condition improved via “spontaneous remission,” Eysenck shook the very foundation of the clinical psychology world (Hollon, 1996; Hubble et al., 1999b) when he reached the conclusion that patients improved more quickly and completely through the natural process of “spontaneous remission” than through treatment in psychotherapy (1952). Indeed, Eysenck implied that psychotherapy treatment slowed the natural healing process in stating,

[patients treated by means of psychoanalysis improve to the extent of 44%; patients treated eclectically improve to the extent of 64%; patients treated only custodially or by general practitioners improve to the extent of 72%. There thus appears to be an inverse correlation between recovery and psychotherapy; the more psychotherapy, the smaller the recovery rate (p. 322).]

Although a 1991 reanalysis of the data indicated that in Eysenck’s sample “psychotherapy accomplish[ed] in about 15 [sic] sessions... what spontaneous remission... [took] two years to accomplish” (McNeilly & Howard, p. 77), discrediting his claims, Eysenck’s pronouncement in 1952 began a debate over the effectiveness of psychotherapy that, for some, still continues today (Garfield, 1997; Hollon; Hubble et al.; Jacobson, 1995; McNeilly & Howard; Ogles et al., 1999; Shadish et al., 1997; Shapiro & Shapiro, 1982a, 1982b; Smith & Glass, 1977; Smith et al.; VandenBos,
1996; Whiston & Sexton, 1993; Wilson & Rachman, 1983). In addition, Eysenck triggered an onslaught of research (Hollon, 1996; Hubble et al., 1999b; McNeilly & Howard; Ogles et al.; VandenBos) aimed at either proving the efficacy of psychotherapy and permanently putting Eysenck’s claim “to rest” (McNeilly & Howard, p. 78) or “proving the ineffectiveness of therapy” and discrediting the field completely (Lambert, 1976, p. 107).

During the 25 years following Eysenck’s (1952) declaration, scientists on both sides of the debate argued and found “conclusive evidence” for their respective positions using narrative and boxscore summaries of the research literature as well as logical and persuasive arguments (Bergin, 1971; Lambert, 1976; Landman & Dawes, 1982; Luborsky et al., 1975; Shapiro & Shapiro, 1982a; Smith et al., 1980). The narrative method of review involved selecting a number of relevant studies; developing a written account summarizing the studies; offering a critical review of the methods used; describing the research findings; making a determination of whether or not the results of each study would be given any weight in drawing conclusions based on “...a series of arbitrary stipulative definitions of concepts and a priori judgments of quality,” or on “...methodological rules [...] applied arbitrarily” (Smith et al., p. 37); and rendering a final decision about the phenomenon in question based on the overall evidence contained in the studies that had been determined worthy of inclusion (Andrews & Harvey, 1981; Smith et al.). The narrative method was not only ill-suited to integrating large volumes of research (Andrews & Harvey; Smith et al.), but it also lacked a consistent research methodology which caused it to be highly subjective and
“...insensitive to the need to adopt consistent definitions and standards of evidence” (Smith et al., p. 36). The narrative method thus allowed the reviewer to ultimately reach, in the research review, the conclusion he or she had already arrived at prior to initiating his or her study of the relevant empirical evidence (Andrews & Harvey; Smith et al.).

The boxscore summary method was superior to the narrative review method, although it also had distinct shortcomings (Glass & Kliegl, 1983; Smith et al., 1980). This method “improved on” the narrative method by “adopt[ing] standard definitions and beg[inning] to keep tallies of how the studies came out: ‘aye’ or ‘nay’ on the hypothesis” (Smith et al., p. 38). Thus, following a review of the selected relevant research literature, the researcher indicated whether or not the study had led to statistically significant findings supporting or disconfirming the phenomenon under study, and then provided a “tally” (Smith et al., p. 38) of the number of studies in support of versus against the phenomenon in question (Andrews & Harvey, 1981; Glass & Kliegl; Landman & Dawes, 1982; Shapiro & Shapiro, 1982a; Smith et al.). Unfortunately, the boxscore method “ignore[d] considerations of sample size in the studies integrated. Large samples produce more statistically significant findings than small samples, ceteris paribus [‘all other things being equal’]” (Smith et al., 1980, p. 38), which resulted in potential for “not quite statistically significant results” (Smith et al., p. 38) obtained in a small study to be discounted entirely (Shapiro & Shapiro; Smith et al.). Moreover, the boxscore method “only allowed the simplest of issues to be explored” (Andrews & Harvey, p. 1203). This limited the sophistication of the
research questions that could be investigated and thus, the body of knowledge that
could be developed using the boxscore method.

As noted above, both the narrative method and the boxscore method of research
review had distinct and important drawbacks. Perhaps the most important of these
shortcomings was the inherent subjectivity and susceptibility to bias inherent in each of
these methods (Andrews & Harvey, 1981; Glass & Kliegl, 1983; Lambert, 1976;
Landman & Dawes, 1982; Shapiro & Shapiro, 1982a; Smith et al., 1980). With regard
to the debate over psychotherapy effectiveness, the complexity and sheer volume of the
psychotherapy outcome research rendered it impossible to coherently integrate all of
the research findings through either narrative or boxscore methods (Andrews &
Harvey; Glass & Kliegl; Shapiro & Shapiro; Smith et al.). As a result, researchers
chose the studies to be reviewed selectively (Andrews & Harvey; Shapiro & Shapiro;
Smith et al.), some failing to even identify the study inclusion or exclusion criteria for
studies used in the reviews conducted (Smith et al.). The researchers then determined
the value and credibility of each study chosen for review based on the (subjectively
determined) quality of the research conducted, eliminated many studies on the grounds
of methodological flaws, and ultimately reviewed only a few studies which, inevitably,
supported the particular reviewer’s position regarding the relative effectiveness or
ineffectiveness of psychotherapy (Andrews & Harvey; Lambert; Shapiro & Shapiro;
Smith et al.). As Smith et al. cogently point out,

...the strategy of ex post facto impeachment of some studies based on design
quality and outcome measurement is unsupportable. This strategy presumes an
objectivity and distance from the problem that is rare among acknowledged advocates and adversaries. No study is above criticism. All studies vary on a number of dimensions of quality and rigor. Where any reviewer draws the line—assigning a study the status of acceptable or unacceptable—is purely an exercise in professional judgment. Any judgmental strategy permits the introduction of bias in the conclusions. Even prescribed decisions to include or exclude the results of studies may inject bias, unless there is independent evidence or rationale for doing so (p. 19).

Given that the reviewer in question obviously knew the outcome of each study from the outset, impartiality was impossible (Shapiro & Shapiro; Smith et al.). Thus, bias inevitably skewed reviews and conclusions regarding the effectiveness or ineffectiveness of psychotherapy, which allowed the debate over the effectiveness to continue for more than two decades (Parloff et al., 1986; Shapiro & Shapiro; Smith & Glass, 1977; Smith et al.; VandenBos, 1996).

The development of the meta-analytic method, a statistical means of integrating and summarizing the outcomes of large volumes of research literature in a standard, methodologically sound manner, effectively changed this situation (Andrews & Harvey, 1981; Glass & Kliegl, 1983; Lambert & Bergin, 1994; Lambert et al., 1986; Landman & Dawes, 1982; Nietzel & Fisher, 1981; Parloff et al., 1986; Shapiro & Shapiro, 1982a; Smith & Glass, 1977; Smith et al., 1980; VandenBos, 1996) and allowed researchers to address the question, “Does psychotherapy work?” in a more objective, scientific way. It is important to note that meta-analytic techniques
subsequently replaced the boxscore review method as the qualitative literature review method of choice (Nietzel & Fisher).

The meta-analytic research process was introduced to mainstream psychology by Smith et al. (1980) in their classic work, *The Benefits of Psychotherapy*, in which the question of psychotherapy effectiveness was addressed by applying statistical analysis to a large number of psychotherapy outcome studies via the meta-analytic method (Glass & Kliegl, 1983; Landman & Dawes, 1982; Shapiro & Shapiro, 1982a). Smith et al. opened by describing the history of the debate over psychotherapy effectiveness and explaining the shortcomings of the narrative and boxscore research review methods. In introducing the meta-analytic method, these scientists argued that in order to conduct a sound research review, basic research principles required that the same rules of empirical process traditionally applied to individual scientific studies be used in the review process. Thus, Smith et al. implored researchers conducting an empirical review to begin by articulating their hypotheses regarding the outcome of the literature review, clearly identifying and defining the population of studies to be reviewed and the methods to be used in obtaining an unbiased sample of such studies (i.e., all of the studies relevant to a particular topic of study, all of the studies conducted within a particular time span, or a randomly selected sample of studies addressing the area of interest), describing the variables to be examined, as well the "common metric" (p. 9) by which the variables would be measured, and identifying the processes by which the study data would be integrated. In reaching conclusions,
researchers were urged to clarify the limitations of both the studies selected and the data integration methods used.

Smith et al. (1980) went on to explain that the data analysis and integration method of meta-analysis involved converting study variables into a "common metric" called the "effect size" (p. 9). Typically, the effect size was calculated by obtaining "the results for each dependent variable in each study," defining each "as a difference between means for the treated and control groups divided by the standard deviation of the control group scores," and then calculating the mean of the "effect size scores... across studies" so that "the impact on effect size of several study characteristics (such as treatment method, client and therapist variables, and measurement and design features) is determined empirically" (Shapiro & Shapiro, 1982b, p. 581).

The advantages of meta-analysis over prior research review methods were many. First, the method was more objective than previous review methods (Glass & Kliegl, 1983; Landman & Dawes, 1982; Parloff et al., 1986; Shapiro & Shapiro, 1982a, 1982b; Smith et al., 1980). Second, it allowed researchers to integrate large volumes of data in a highly manageable manner that could easily be replicated by other researchers (Glass & Kliegl; Landman & Dawes; Parloff et al.; Shapiro & Shapiro, 1982b; Smith et al.). Third, the qualitative nature of statistical data analysis allowed researchers to draw more complex conclusions about the phenomenon being studied (Parloff et al.; Lambert & Bergin, 1994; Smith et al.). Narrative and boxscore methods merely allowed researchers to determine, through a preponderance of the evidence, whether or not a particular phenomenon existed – a simple "yes" or "no" determination
(Shapiro & Shapiro, 1982a; Smith et al.). The calculation of an effect size allowed researchers to go beyond simple confirmation of a phenomenon to determine not only its average magnitude but also its robustness (Lambert & Bergin; Landman & Dawes; Parloff et al.). Thus, through the process of meta-analysis, researchers would be able to “establish dependable generalizations and... offer clues to the explanation of [the research] findings” (Shapiro & Shapiro, 1982b, p. 582). Applied to the analysis of psychotherapy treatment outcome, meta-analytic methods could be used to determine whether or not treatment was generally effective, and to what extent, for the individuals who sought treatment (Smith et al.). As a logical extension of this line of research, meta-analysis could also clarify whether all individuals receiving psychotherapy were able to benefit from treatment, and if some were not able to benefit, what proportion of individuals in psychotherapy treatment this encompassed.

Nonetheless, there were drawbacks to the method as well. Most importantly, the overall quality of the meta-analysis and its findings could only be as good as the quality of the individual research studies that had been compiled by the statistician for the analysis (Cook & Leviton, 1980; Lambert et al., 1986; Parloff et al., 1986; Shapiro & Shapiro, 1982a, 1982b; Smith et al., 1980; Wilson & Rachman, 1983). Therefore, meta-analysis did not eliminate the need for researchers to determine the quality of the research studies included in the analysis and the potential impact of the methodological weaknesses within individual studies on the outcome of the overall statistical analysis (Cook & Leviton, 1980; Glass & Kliegl, 1983; Shapiro & Shapiro, 1982a, 1982b; Smith et al.; Wilson & Rachman). In addition, in order to arrive at accurate effect-size
results using the meta-analytic method, a solid understanding of the various statistical tools and the types of data to which they could reliably be applied was necessary (Cook & Leviton, 1980; Parloff et al.; Shapiro & Shapiro, 1982a). If researchers were to erroneously apply a statistical tool inappropriate to the data in the original studies being evaluated, inaccurate or skewed results could ensue, leading to incorrect interpretations and conclusions about the phenomenon under study (Parloff et al.).
As previously mentioned, the meta-analytic method was first brought to bear on the question of psychotherapy effectiveness by Smith and Glass (1977) and Smith et al. (1980). Applied to the question of psychotherapy treatment effectiveness, the rationale of the metaanalytic [sic] technique is as follows. The symptoms of patients coming for treatment will range from mild to severe; the symptom scores of individual patients will be normally distributed about the score of the average patient. Random allocation to treatment and control groups will produce two groups with similar distributions of symptoms. After effective therapy, the condition of the treated group will have improved more than that of the control group, and a measure of this effectiveness is the distance between the distributions of the control and treatment groups' symptom scores at this time. This is measured in SD [standard deviation] units and is called the effect size. It is independent of the scaling properties of the symptom measure used...

It is the comparability of the effect size measures derived from different outcome indicators that allows studies to be compared by statistical techniques; the study, not the individual patient, becomes the unit of analysis (Andrews & Harvey, 1981, pp. 1203-1204).

Thus, using the meta-analytic technique, Smith & Glass and Smith et al. determined the overall average effectiveness of psychotherapy, the differential effectiveness of different methods and modalities of psychotherapy, and the repercussions of the
“methodological features of studies upon the reported effectiveness of treatment”
(Lambert et al., p. 159).

Smith & Glass (1977) conducted a broad search of the psychotherapy treatment outcome literature and ultimately selected 375 studies to analyze and integrate through meta-analysis. Included in the selected studies were analogue studies as well as authentic therapy studies; however, “drug therapies, hypnotherapy, bibliotherapy, occupational therapy, milieu therapy, ...peer counseling... [s]ensitivity training, marathon encounter groups, consciousness-raising groups, and psychodrama were... excluded” (Smith & Glass, p. 753). In many of the studies, more than one effect size could be generated because more than one outcome was measured (Glass & Kliegl, 1983; Smith & Glass). Thus, Smith and Glass calculated 835 effect sizes, the dependent variables of the study, gleaned from the 375 studied selected for review. The independent variables were sixteen factors measured in the original studies selected including: psychotherapy treatment model applied; treatment modality (i.e., individual, group, family); amount of therapy (number of hours); age, intelligence level, and diagnostic category of the clients involved (i.e., neurotic vs. psychotic); training and amount of experience of the therapists involved; degree of similarity between clients and therapists in terms of ethnic and social status; time elapsed between the end of treatment and the measure of outcome; the kind of outcome measure used and its degree of “reactivity or ‘fakeability’” (Smith & Glass, p. 754); the publication date and forum in which the study was published; and the internal validity of the study as judged and rated by Smith and Glass. In analyzing the data obtained,
goals (Horvath & Luborsky, 1993; Kolden et al.; Martin et al.; Orlinsky et al.; Saunders et al., 1989). Orlinsky et al. refer to this as the "task-instrumental side of the therapeutic bond" (p. 321). In successful psychotherapy treatment, the therapist is actively engaged in this process and conveys to the patient a sense of confidence in his or her ability to meet treatment goals through relevant, effective therapeutic tasks (Horvath & Luborsky, 1993; Kolden et al.; Luborsky; Orlinsky et al.; Miller; Najavits & Strupp; Reandeau & Wampold; Saunders et al., Steenbarger); Orlinsky et al. call this aspect of the therapeutic bond the therapist's "personal role investment" (p. 321).

The therapist also guides the process of developing the "affective" (Martin et al., 2000, p. 438), or "social-emotional side of the therapeutic bond" (Orlinsky et al., 1994, p. 321). In successful psychotherapy outcomes, the therapist's offered "empathic understanding" and "affirmation" (p. 326), which is composed of "acceptance, nonpossessive warmth, ...positive regard" (p. 326) and "therapist self-congruence (genuineness)" (p. 339) lead to the establishment of "good communicative contact" (p. 326) and rapport with the patient (Orlinsky et al.). The bond that is thus formed lays the groundwork for successful therapeutic change (Henry & Strupp, 1994; Horvath & Luborsky, 1993; Kolden et al., 1994; Miller, 1993; Orlinsky et al; Patterson, 1984; Reandeau & Wampold, 1991; Truax et al., 1966).
Smith and Glass calculated descriptive statistics of the aggregated studies, the separate studies of different psychotherapy treatment models, and of discrete studies that directly compared behavioral and nonbehavioral treatment. In addition, the researchers conducted “regression analyses in which effect sizes were regressed onto variables descriptive of the stud[ies]” (Smith & Glass, p. 754).

The overall results of the study indicated that, as a group, clients undergoing psychotherapy treatment experienced marked improvement—“a .68 standard deviation superiority of the treated group over the control group. Thus, the average client receiving therapy was better off than 75% of the untreated controls” (Smith & Glass, 1977, p. 754). Moreover, the effect sizes generated from outcome measures of client fear and anxiety levels approached one standard deviation (.97 SD) (Smith & Glass). This indicated “the average treated client is better off than 83% of those untreated with respect to the alleviation of fear and anxiety” (Smith & Glass, p. 756). Analysis of measures of clients’ self-esteem levels yielded similar findings—an increase of slightly less than 1 standard deviation (.9 SD) in average self-esteem level (Smith & Glass). In measures of “personal functioning” or “adjustment,” the alleviation of symptoms was not as large—an average .56 standard deviation (Smith & Glass, p. 756). Last, the impact of treatment on achievement was .31 (Smith & Glass). Importantly, Smith and Glass noted that “[t]he effect sizes [generated by treatment] diminish across time” (p. 759), indicating that the effects of psychotherapy treatment, while noteworthy, may not be lasting.
In terms of the differential effectiveness of the various psychotherapy treatment models, the three most effective treatments in terms of average effect size were behavioral and cognitive: systematic desensitization yielded an average effect size of .91 SD; rational-emotive, .77 SD; and "Skinnerian" behavioral modification, .76 SD (Smith & Glass, 1977). The seven remaining models also yielded respectable effect sizes: adlerian, .71; implosion, .64; client-centered, .63; psychodynamic, .59; transactional analysis, .58; eclectic, .48, and gestalt, .26 (Smith & Glass, p. 756).

Interestingly enough, Smith and Glass noted, "these 10 [sic] therapy types account for 10% [sic] of the variance in the effect size that studies produce[d]" (p. 757). In comparing the overall effect sizes for behavioral and for nonbehavioral treatment methods, the researchers found:

On average, approximately 200 evaluations of [the] behavioral therapies showed a mean effect of about .8 [standard deviation], [with a] standard error of .03, over the control group. Approximately 170 evaluations of nonbehavioral studies gave a mean effect size of .6 [standard deviation], [with a] standard error of .04. This small difference (.2 [standard deviation]) between the outcomes of behavioral and nonbehavioral therapies must be considered in the light of the circumstances under which these studies were conducted. The evaluators of behavioral... therapies waited an average of 2 [sic] months after the therapy to measure its effects, whereas the postassessment [sic] of the nonbehavioral therapies was made in... 5 [sic] months, on... average.

Furthermore, ...the behavioral researchers showed a slightly greater tendency to
rely on more subjective outcome measures. These differences lead one to suspect that the .2 [standard deviation] difference between the behavioral and nonbehavioral [therapies] is somewhat exaggerated in favor of the behavioral [therapies] (Smith & Glass, pp. 757-758).

Also, Smith and Glass (1977) determined the impact of the independent variables, identified at the beginning of the study, on treatment outcome. Of the original sixteen factors chosen for analysis, 11 were “correlated with the effect size the study produced” (Smith & Glass, p. 758). Those factors that significantly correlated with effect size (p < .05) included the study’s rated internal validity, study publication date, and time elapsed (in months) between treatment termination and outcome measure; at (p < .01) significant factors included the therapist-rated clients’ IQ, the rated similarity between clients and therapists in terms of social and ethnic status, and the rated reactivity of the outcome measure used (Smith & Glass, p. 758). According to the researchers, these factors, in aggregate, generated an approximate effect size of .50, indicating that about “25% of the variance in the results of studies can be reduced by specification of independent values” (Smith & Glass, p. 759).

In addition to demonstrating the effectiveness of psychotherapy, however, Smith and Glass’ (1977) research also indicated that some individuals do not improve in psychotherapy (Glass & Kliegl, 1983; Lambert et al., 1986; Mohr, 1995). Specifically, Smith and Glass found that “12% of the 833 effect-size measures from the 375 studies [included in the meta-analysis] were negative” (p. 755). While “[a] positive effect size [ES] indicates that the treatment group improved more than the
untreated group,” “a negative ES indicates that the untreated group improved more than the treated group” (Landman & Dawes, 1982, p. 505). This is a clear indication that a sufficient number of individuals in the treated group either maintained their pretreatment psychological status or experienced a decline from this level to pull the treatment results achieved in the treatment group (ES) below those of the untreated group (Landman & Dawes). Unfortunately, the researchers (Lambert et al.; Mohr) did not adequately discuss the implications of this finding. This drew attention away from the occurrence of nonresponse and negative response in psychotherapy, and it reduced the likelihood that others might begin research into the phenomenon (Lambert et al.; Mohr).

Rather, based on the above-noted findings, Smith and Glass (1977) correctly concluded that, in general, psychotherapy does bestow benefits on those treated. In addition, the researchers stated “the results... demonstrate negligible differences in the effects produced by different therapy type” (p. 760). Thus, Smith and Glass suggested that statements regarding the differential effectiveness of one type of treatment over another are not founded, and are thus inappropriate. As in the main body of the text, the researchers neither addressed the negative effect size finding, nor explained its implications in their concluding statements (Smith & Glass). It is likely that the researchers did not want to draw attention away from the overwhelmingly positive findings supporting the overall effectiveness of psychotherapy (Barbrack, 1985). Unfortunately, this discouraged further investigation into the factors involved in treatment nonresponse and negative response and into potential remedies to this
concerning situation (Lambert et al., 1986; Mohr, 1995). Critics of the study did not
address this oversight, but did suggest that the results of the Smith and Glass study
were confounded by the significant number of analogue studies included in the
analysis, studies of clients who were not true patients with actual clinical problems
(Andrews & Harvey, 1981), and studies in which no untreated control group were
included (Landman & Dawes, 1982).

Smith et al. conducted a greatly expanded follow-up study in 1980. The study
contained two separate meta-analyses. The first meta-analysis evaluated the overall
effectiveness of psychotherapy and compared the relative effectiveness of different
types of psychotherapy. The second study evaluated the effectiveness of
psychopharmacological interventions both combined with psychotherapy and in
comparison to psychotherapy.

Included in the first study, which focused strictly on the effectiveness of
psychotherapy, were “all controlled studies of the effectiveness of any form of
psychotherapy” in which clients with an “emotional or behavioral problem” had
engaged in “psychological or behavioral treatment” with an individual “identified as a
psychotherapist” to address the difficulty, whether through their own effort or through
a referral (Smith et al., 1980, p. 56). Despite criticism of the inclusion of analogue
studies in the previous study, Smith et al. again included analogue studies, indicating,

[the label of “analogue” is usually used to designate studies of short-term
behavioral therapies practiced on volunteer clients... by relatively inexperienced
therapists. Usually, the rationale for exclusion of analogue studies is that “real”
therapy is not tested, nor “real” clients, nor therapists [sic]. The important question is whether the effects of therapy vary with the severity of the client illness, experience of the therapist, and length of treatment. ...this question is best addressed empirically by studying the relationship between severity of illness, length of treatment, and experience of therapist on the one hand, and the effect of therapy on the other (p. 57).

In this study, criteria for study exclusion were similar to those delineated in Smith & Glass (1977).

Using strictly specified literature search criteria, Smith et al. (1980) identified 475 studies to include in the meta-analysis. These matched study criteria and included dissertations, studies published in major journals, research presented at professional gatherings, and unpublished studies identified and obtained through networking with other researchers. From each study, the researchers gleaned more than twenty-five client, therapist, treatment, instrument, and study variables for analysis. Over fifteen types of psychotherapy treatment models representing both behavioral and nonbehavioral schools of thought were represented in the studies, and an elaborate classification scheme was developed to determine the classes of treatment models on which data would be analyzed and compared. On the basis of the variables chosen, Smith et al. calculated a total of 1,766 effect-sizes from the studies selected.

Overall, the statistical analyses using meta-analytic methods yielded an average effect size of .85 (standard error .03) (Smith et al., 1980). Thus, “the difference in the means between groups receiving psychotherapy of any type and untreated control
groups was 0.85 standard deviation units averaged across all outcome measures” (Smith et al., p. 87). According to the researchers:

This relationship indicates that the average person who receives therapy is better off at the end of it than 80 percent [sic] of the persons who do not. Stated differently, but equivalently, the average person who would score at the 50th percentile of the untreated control population, could expect to rise to the 80th percentile with respect to that population after receiving psychotherapy. [...] The estimate of the effectiveness of psychotherapy as 0.85 standard deviation units is a conservative figure, since it includes placebo treatments as well as undifferentiated counseling (p. 88).

Comparative analyses of different psychotherapy treatment types were also conducted (Smith et al., 1980). First, comparisons of the effect sizes produced by various types of psychotherapy were conducted without statistically controlling for client, therapist, treatment, instrument, or study variables (Smith et al.). These comparative analyses revealed modest, but distinct, differences in the average effect sizes produced by the following six types of psychotherapy: cognitive (1.31); cognitive-behavioral (1.24); behavioral (.91); dynamic (.78); humanistic (.63); and developmental (.42) (Smith et al., p. 94). When the different types of treatment were further combined into three broader classes and compared without statistical control of other variables, the resulting average effect sizes were as follows: behavioral therapies (.98); verbal therapies (.85); developmental therapies (.42) (Smith et al., p. 98).
Next, further statistical analyses were conducted that controlled for the influence of the various client, therapist, treatment, instrument and study variables involved (Smith et al., 1980). With statistical controls implemented, comparisons of the effect sizes resulting from behavioral and verbal therapies were not statistically significantly different, although developmental therapies still produced significantly smaller effect sizes than either behavioral or experimental methods (Smith et al.).

Detailed regression analyses revealed that a number of client, therapist/experimenter, instrument, and study factors clearly influenced the effect sizes found (Smith et al., 1980). Client variables found, via regression analysis, to be associated with relatively larger average effect sizes included socioeconomic or education level comparable to that of the therapist \( (r = .10) \), diagnosis of depression \( (r = 1.11) \) or phobia \( (r = 1.02) \), higher level of intelligence \( (r = .08) \), and direct recruitment into the study \( (r = .92) \) (Smith et al.). Surprisingly, most therapist/experimenter variables were not related to increased effect size; only identifiable experimenter allegiance to a given treatment method impacted the effect size found (i.e., greater effect sizes were found for the preferred mode of treatment, \( r = .95) \) (Glass & Kliegl, 1983; Smith et al.). Regression analyses of the effects of instruments used to measure treatment outcome revealed that the greater the reactivity of the outcome instrument employed in an experiment \( (r = .18) \) and the less time elapsed between the termination of treatment and completion of the outcome measure \( (r = .14) \), the larger the effect size (Glass & Kliegl; Smith et al.). The researchers suggested that these instrumentation factors may have contributed to the larger effect
size found for behavioral therapies, compared with verbal therapies in uncontrolled comparisons, as the instruments implemented in behavioral studies tended to be more reactive and administered more quickly after treatment termination than those used in verbal psychotherapy studies (Smith et al.). Last, one study factor was found to be associated with effect size – the quality of the research (high internal validity, $r = .88$) (Smith et al.). This finding led Smith et al. to conclude,

The allegation by critics of psychotherapy – that poor quality research methods account for the positive outcomes observed – can now be laid to rest. The degree of experimental rigor employed by the researcher was positively related to the size of effect produced. Greater controls were [also] associated with slightly higher effects (p. 126, italics of original work).

When all of the factors impacting the effect size were controlled for, and statistical analyses run, Smith et al. (1980) found significant effect sizes associated with treatment: behavioral (0.98), verbal (0.84), developmental (0.42) (p. 104-105). As in the original study, though, Smith et al. found that negative effect sizes did occur in 9% of studies, evidencing the existence of treatment nonresponse or negative response in some of the treated patients (Glass & Kliegl, 1983; Mohr, 1995). As in the 1977 study (Smith & Glass), Smith et al. (1980) did not address these findings, concluding only that the results clearly demonstrated the effectiveness of psychotherapy and wholly discredited the claims of Eysenck and others who would argue that psychotherapy is not beneficial (Glass & Kliegl).
Smith et al. (1980) also conducted a second meta-analysis evaluating the effectiveness of psychopharmacological interventions, both combined with psychotherapy and in comparison to psychotherapy. As noted by the researchers, as with the psychotherapy literature, reviews addressing the effectiveness of psychoactive drugs used either the narrative approach or the boxscore method; thus, the Smith et al. meta-analysis was the first of its kind in this realm as well.

From the entire population of studies evaluating the effectiveness of psychotropic drugs using one or more treated groups and an untreated control group, Smith et al. (1980) included all published research (from 1954 to 1977) that evaluated both effectiveness of psychotropic medication compared with psychotherapy, and the research that evaluated the effectiveness of psychotropic treatment coupled with psychotherapy. In addition, the researchers drew a random sample of all studies evaluating the effectiveness of psychotropic medication in comparison with an untreated control group. Excluded were studies of patients treated for conditions that were arguably psychosomatic but focused strictly on the physiological problems that had resulted, studies “that used only physiological outcomes,” and “studies of toxic psychosis (e.g., drug-induced psychosis) or model psychosis (e.g., using hallucinogens)” (Smith et al., p. 143). A total of 112 studies yielding 566 effect sizes regarding twenty client, therapist, medication, instrument, and study factors were included in the meta-analysis conducted.
The results of the meta-analysis revealed the following:

...when drug therapy was compared to a placebo control group, the effect size averaged about... 0.40 [standard deviation units]. The comparable effect for psychotherapy treatment was about three-tenths standard deviation units...

Hence, the separate effects of drug therapy and psychotherapy in the treatment of severe psychological disorders favor drug therapy by only about one-tenth standard deviation. [...] Our best estimate indicated that the combined [psychotherapy and pharmacotherapy] treatments produce an effect that is slightly smaller than the sum of the effects of the two treatments applied separately (negative interaction). This finding does not imply that it is disadvantageous to combine the two treatments; indeed, in combination they yield an effect of roughly 0.60 standard deviations – larger than either separate effect. The negative interaction that was found implies that the two treatments do not combine in some synergistic or mutually facilitative way... . The analyses yielded few interesting or convincing relationships between the magnitude of drug treatment effects and characteristics of the treatment, the patients, or the properties of the experiment (Smith et al., 1980, pp. 179-180).

Thus, the relative effectiveness of both psychopharmacological therapy and psychotherapy as separate treatments in psychological disorders and as a combined treatment strategy were demonstrated in Smith et al.
In the main, the findings of Smith et al. (1980) were considered pivotal in demonstrating the overall effectiveness of psychotherapy. Indeed, the final conclusion drawn by these researchers has often been cited since its publication:

Psychotherapy is beneficial, consistently so and in many different ways. [...] The evidence overwhelmingly supports the efficacy of psychotherapy. [...] anyone who respects and understands how empirical research is performed and what it means must acknowledge that psychotherapy has more than proven its effectiveness. Indeed, its efficacy has been demonstrated with near monotonous regularity. The post hoc rationalizations of academic critics of the psychotherapy-outcome literature... have nearly been exhausted. They can scarcely advance new excuses without feeling embarrassed, or without raising suspicions about their motives (p. 183).

Although critics (Erwin, 1984; Eysenck, 1984; Rachman & Wilson, 1980; Wilson & Rachman, 1983) certainly debated the legitimacy of the findings of the Smith et al. study (Glass & Kliegl, 1983) (the interested reader is directed to Shapiro & Shapiro, 1982a & to Wilson & Rachman, 1983 for excellent critical evaluations of Smith et al.), three replications of Smith et al. (Andrews & Harvey, 1981; Prioleau et al., 1983; Shadish et al., 1997) and two replications of Smith and Glass (1977) (Landman & Dawes, 1982; Shapiro & Shapiro, 1982b) corroborated the original findings and lent significant support to the conclusions generated.
Andrews & Harvey (1981) conducted the first replication of Smith et al. (1980). It was the goal of Andrews & Harvey to determine the relevance of claims that the Smith and Glass (1977) and Smith et al. findings were confounded by the inclusion of studies involving the treatment of individuals who were not actual patients with true clinical problems. It was claimed that the treatment outcome results of such “pseudo-patients” with only minor problems had resulted in an overall psychotherapy effect size that was artificially inflated (Andrews & Harvey). To address this claim, Andrews and Harvey conducted a meta-analysis of 81 research studies, involving only “neurotic patients who [independently] sought treatment [or were directly referred for psychotherapy]” (p. 1204) gleaned from the original 475 used by Smith et al. Data analysis of the 81 relevant studies yielded 292 effect sizes, which served as the dependent variables in the study (Andrews & Harvey). The independent variables were composed of a number of client, therapist/experimenter, treatment, study, and instrument factors nearly identical to those investigated by Smith et al.

The results of the meta-analysis indicated that psychotherapy treatment resulted in an average effect size of 0.72 (standard deviation unit) (Andrews & Harvey, 1981). According to the researchers, “this indicates that for neurosis, the average subject after treatment had scores superior to 76% of control group subjects assessed at the same time” (Andrews & Harvey, p. 1205), resulting in “an overall gain of 26 percentile ranks in the treated compared with the untreated groups” (p. 1206). In addition, while the effect size of psychotherapy treatment in neurotics (0.72) was somewhat smaller than that of the “nonneurotic patients who sought treatment” (0.87 standard deviation units)
(p. 1205), statistical analyses revealed that there was no significant difference in these effect sizes ($F = 3.4; P = .07$) (Andrews & Harvey). Moreover, similar to the findings of Smith et al. (1980), analyses by Andrews and Harvey revealed that the “benefits [of treatment] are stable for many months but decline slowly thereafter at an estimated 0.2 effect size units per annum” (p. 1206).

Contrary to the findings of Smith et al. (1980), Andrews and Harvey (1981) did find significant differences ($P < .001$) between the average effect sizes demonstrated by different psychotherapy types. Behavioral therapies yielded an average effect size of 0.97 (SD); verbal psychotherapies, an average effect size of 0.74 (SD); developmental psychotherapies, an average effect size of 0.35 (SD) (Andrews & Harvey). Unlike the behavioral and verbal therapies, the effect size generated by the developmental therapies was not significantly different than that of placebo treatment (SD = 0.55) (Andrews & Harvey). It is not clear whether or not the above-noted effect sizes were generated after statistically significant differences in the impact of clinical severity factors, length of treatment, and time elapsed between treatment termination and administration of outcome measure were controlled for, or whether the overall effect sizes merely represent the average effect size across the above variables. This is crucial to ascertain, as Smith et al. also found differences in the effect sizes generated by various treatment types before controlling for the impact of other factors; these differences disappeared when the impact of other relevant factors were controlled. In addition, it is important to note that Andrews and Harvey did not find either the
reactivity of the measurement tool or the failure to use blinding procedures to influence
the effect size generated, also contrary to the findings of Smith et al.

Landman and Dawes (1982) conducted a modified replication of Smith and
Glass (1977) in order to investigate critics’ allegations that methodologically
inadequate studies and “the influence of statistical nonindependence [sic] of results”
(Landman & Dawes, p. 506) led to Smith and Glass’ positive findings. In addition,
Landman and Dawes sought to “determine the magnitude of placebo effect” (p. 507)
among studies incorporating a placebo control group, an issue that had not been
addressed by Smith and Glass. From the original 468 studies included in Smith and
Glass’ meta-analysis and 93 additional studies, Landman and Dawes randomly selected
65 studies. Of those selected, 42 were deemed to be “appropriately controlled” (p.
508), and the studies were thus incorporated into Landman and Dawes’ meta-analysis.

The results of Landman and Dawes’ (1982) meta-analysis indicated an average
effect size of .78 (SD = .78) for psychotherapy (p. 510). No negative effect sizes were
found (Landman & Dawes). Thus, contrary to the argument of critics, “the...
subsample of well-designed studies produced a marginally higher treatment effect than
did Smith and Glass’ (1977) original sample [M = .68; SD = .67] of studies of mixed
methodological quality” (p. 510). Furthermore, the researchers found that “[t]reating
nonindependent data as if they were independent,” as Smith and Glass had done,
“seem[ed] to have... no consistent impact on the resulting overall average effect size”
(p. 510). Lastly, analyses indicated “the potency of placebos was less than that of
therapy in these studies,” with a “magnitude of effect of treatment relative to placebo”
of .38 (Landman & Dawes, p. 511). Landman and Dawes' findings led the researchers to state, "the conclusions drawn by Smith and Glass must stand" (p. 513), providing further evidence of psychotherapy's overall effectiveness.

A second replication of the Smith et al. (1980) meta-analysis was conducted by Prioleau et al. in 1983. Rather than conducting a meta-analysis of each dependent variable in the treatment outcome studies included, as Smith et al. had done, Prioleau et al. calculated a "mean effect size" by averaging "effect size measures for each dependent variable included within the study" (p. 276), and then applying meta-analytic procedures to these aggregate values. Prioleau et al. argued that this process was "more appropriate" than including each individual dependent variable in a study "[g]iven the degree of variability across studies" and their belief that the inclusion of each individual dependent variable "weights [a given] study by the number of dependent variables included in it" (p. 276). Also, instead of reanalyzing all of the studies included in Smith et al., Prioleau et al. "focused on... [a representative] subset of studies reported by Smith et al." (p. 276). This subset included only studies of verbal psychotherapy and excluded studies of behavior therapy (Prioleau et al.). The researchers explained that, in their view, the two therapies varied too much in terms of the patients they attracted, the interventions that were applied, and the outcome measures used to allow meaningful conclusions to be drawn from a meta-analysis that included both treatment modalities. Prioleau et al. also restricted their reanalysis to studies in which a placebo control group had been incorporated, in part to determine "whether the benefits of psychotherapy exceed changes attributable to placebo
expectations” (p. 276). The researchers indicated that only 40 of the studies incorporated in Smith et al. met the above-noted criteria; of these, eight were eliminated because they were either perceived to be “so seriously flawed as to render any comparison unjustified[,] or because... it was not possible to compute measures of effect size” with the information provided (p. 278). Unfortunately, Prioleau et al. neither described the nature of the methodological problems leading them to exclude a study, nor stated their criteria for study inclusion (Glass, Smith, & Miller, 1983; Kazdin, 1983; Wilson, 1983). Failure to determine study inclusion / exclusion criteria prior to meta-analysis creates the potential for bias in study selection (Glass & Kliegl, 1983; Kazdin; Smith et al.).

The results of Prioleau et al.’s (1983) meta-analysis indicated an average effect size of .42 for verbal psychotherapies, “exactly in agreement with the magnitude of the psychotherapy effect size relative to placebo treatments estimated by Smith et al. (1980)” (p. 279). However, Prioleau et al. interpreted this result much differently than Smith et al. had (Garfield, 1983; Glass et al., 1983; Greenberg, 1983; Rosenthal, 1983a), stating that the results indicated “that the benefits of therapy relative to placebo treatment... [are] vanishingly small” (p. 279). Moreover, Prioleau et al. concluded that “[o]n the basis of the available data we see no reason to believe that subsequent research using better... procedures and investigating other types of therapy... will yield clear-cut indications that psychotherapy is more beneficial than placebo treatment” (p. 284).
Not surprisingly, strong reactions, both supporting Prioleau et al.’s (1983) findings (Dawes, 1983; Eysenck, 1983; Maher, 1983; Sebeok, 1983; Shepherd, 1983), and taking issue with them (Andrews, 1983; Cordray & Bootzin, 1983; Dahl, 1983; Eagle, 1983; Erwin, 1983; Fish, 1983; Frank, 1983; Garfield, 1983; Glass et al., 1983; Greenberg, 1983; Hedges, 1983; Kazdin, 1983; Kline, 1983; Rosenthal, 1983a, 1983b; Shapiro, 1983; Spence, 1983; Wilson, 1983), followed. Critics pointed out several major areas of weakness in Prioleau et al.’s analysis and conclusions. First, as previously noted, Prioleau et al. failed to identify the criteria used to determine if a study would be considered methodologically adequate for inclusion in the analysis (Kazdin; Smith et al., 1980). Given that eight studies were excluded, this was considered a significant confound. Second, many critics argued that the researchers drew broad conclusions based on 32 studies of mixed quality, resulting in overgeneralizations that could not be supported (Andrews; Greenberg; Kline; Shapiro; Spence). Third, Prioleau et al.’s decision to include only studies incorporating placebo control treatments was roundly criticized on the basis that many other studies of varying design-type have the potential to generate useful information about treatment effectiveness (Andrews; Cordray & Bootzin; Kazdin; Shapiro). Fourth, many of the studies included in the analysis had clearly utilized legitimate treatment techniques (i.e., teaching relaxation techniques, creating response hierarchies to feared stimuli) as placebo control treatments (Cordray & Bootzin; Dahl; Erwin; Garfield; Kazdin; Rosenthal, 1983b; Shapiro). This was likely to increase the effect size of placebo control treatments, resulting in the misleading finding of near equivalence between
placebo treatments and verbal psychotherapies in treatment effectiveness (Cordray &
Bootzin; Dahl; Erwin; Garfield; Kazdin; Rosenthal, 1983b; Shapiro). Last and most
importantly, many of Prioleau et al.'s critics argued that the "nonspecific" elements of
psychotherapy treatment (i.e., a supportive relationship in which the therapist listened
to the client's problems and concerns) that had been used for placebo controls in some
studies actually constitute, in part, psychotherapy treatment (Cordray & Bootzin; Dahl;
Erwin; Fish; Frank; Greenberg; Kazdin; Rosenthal 1983b; Wilson). Thus, these critics
argued, the finding that placebo treatments were effective to some degree did not
automatically indicate that psychotherapy was not effective (Cordray & Bootzin; Dahl;
Erwin; Fish; Frank; Greenberg; Kazdin; Rosenthal 1983b; Wilson). As noted later in
this manuscript, a substantial body of empirical evidence has accumulated since the
publication of Prioleau et al.'s analysis supporting this relevant criticism. Overall,
Prioleau et al. replicated the findings of Smith et al. (1980), and although Prioleau et al.
interpreted the findings differently, the results nevertheless supported Smith et al.'s
pivotal work.

A third, modified replication of Smith and Glass (1977) was conducted by
Shapiro and Shapiro (1982b), who expanded the 1977 study by adding 122 new studies
to the analysis and retaining only twenty-one of the studies selected for the original
treatment outcome meta-analysis. Excluded from Shapiro and Shapiro's meta-analysis
were all dissertations and comparative studies that did not incorporate an untreated
control group into the research design. Included was a "representative sample [of] all
published, controlled comparisons between treatments... [from] 1975-1979" (Shapiro
& Shapiro, p. 582). In addition, changes were made “in the categories and dimensions used to characterize outcome measures” in order to “differentiate between different kinds of outcome measures” (Shapiro & Shapiro, p. 583). Last, data analysis processes were altered so that “subanalysis of all studies not involving direct comparisons... [were] restrict[ed]... to studies making simultaneous comparisons between two or more treated [groups] and a control group” (Shapiro & Shapiro, p. 582). A number of client, therapist, treatment, and study factors served as the independent variables for this study; the dependent variables were the 1,828 effect sizes calculated (Shapiro & Shapiro, 1982a, 1982b).

The results of the meta-analysis revealed an overall average effect size of .93 associated with psychotherapy treatment (Shapiro & Shapiro, 1982b). This value “implies that the average treated client lies at the 82nd percentile of untreated clients” (Shapiro & Shapiro, p. 586). In addition, comparisons of various treatments led the researchers to conclude:

The present data revealed a modest but undeniable superiority of behavioral and cognitive methods and a corresponding relative inferiority of dynamic and humanistic (verbal) methods, in the results of simultaneous controlled comparisons; statistical control of variation in other study characteristics via multiple regression analysis further highlighted the apparent superiority of cognitive therapy and did little to diminish the impact of the treatment methods generally (Shapiro & Shapiro, p. 596-597).
While the researchers found some variation in the overall effectiveness of different psychotherapies, the "differences among treatment methods accounted for at most 10% of the variance" (Shapiro & Shapiro, 1982a, p. 21), indicating differences in effectiveness rates across therapies was slight. Thus, Shapiro and Shapiro's (1982b) meta-analysis of a carefully selected sample of controlled outcome studies, designed and conducted to address the concerns of critics, clearly demonstrated an overall treatment effect size approaching one standard deviation. The results also indicated that while differences in treatment efficacy exist among the major models of psychotherapy, both behavioral and verbal psychotherapies have a measurable, overall positive effect on those who avail themselves of treatment. It is, nonetheless, important to note that Shapiro and Shapiro's (1982b) work indicated 11.3% of the effect sizes calculated were negative, and 30% supported the null hypothesis. This, again, provided support for the argument that some individuals do not benefit from psychotherapy, an issue that was not discussed by the researchers (Mohr, 1995).

Recently, Shadish et al. (1997) conducted a meta-analysis similar to that of Smith et al. (1980) examining the effectiveness of psychotherapy in "clinically representative conditions" (p. 355), as opposed to stringent research conditions. As noted by Shadish et al., questions about the generalizability of research findings to clinical situations have been raised for years, given that "therapy analogue research... conditions approximate the clinical situation but... [involve] target problems [which] may be less severe, patient populations [which] may be less disturbed, and therapists [who] may be less experienced" (electronic version, p.2). In order to assess the
effectiveness of treatments administered in outpatient settings that were somewhat- to highly-similar to the typical clinical setting (as defined by the results of several surveys conducted by the American Psychological Association), Shadish et al. applied meta-analytic procedures to studies in three cumulative stages.

The studies included in the first, most inclusive stage of analysis were required to involve self- or other-referred patients (i.e., patients that had not been solicited for the research study or anyone involved in it) who were receiving treatments in typical clinical settings (free of university affiliations), from experienced psychotherapists who had completed their professional training and were not exclusively trained for the research in question (Shadish et al., 1997). The researchers located 56 studies that met these criteria (Shadish et al.). To be included in the second stage of analysis, studies were required to meet all of the aforementioned first-stage conditions and two additional limitations – neither treatment manuals nor treatment implementation monitoring could be involved in the research (Shadish et al.). Only 15 studies met these requirements (Shadish et al.). Studies included in the third stage of analysis were required to meet all Stage 2 criteria and to involve clients from varied demographic backgrounds, presenting with assorted problems, treated by therapists who were free to apply various treatment interventions (Shadish et al.). Therapists were not to have received any special training in a given modality for the research in question (Shadish et al.). The researchers stated they could only locate one study that met these criteria (Shadish et al.). Shadish et al. argued that the study included in the third phase of analysis most closely represented the true state of affairs found in clinical treatment
settings in the United States. Based on the relative small number of studies meeting the above-described criteria for clinical relevance, Shadish et al. concluded "relatively few clinically representative studies have been conducted;" thus, "relatively few studies of clinic therapy exist in the therapy research literature" (electronic version, pp. 6-7).

Rather than selecting one meta-analytic method with which to analyze the data, Shadish et al. (1997) calculated the average effect sizes of studies in each stage using two different methods. Each method, they argued, had different strengths and weaknesses, and only a comparison of the results derived would provide the data needed to draw worthwhile conclusions (Shadish et al.). In the first analysis, the researchers simply "average[d] the effect sizes" of the studies in each group, "giving more weight to studies with larger sample sizes" (Shadish et al., electronic version, p. 7). This resulted in an average effect size of .68 for Stage 1 studies, .58 for Stage 2 studies, and .51 for the Stage 3 study (Shadish et al.). In the second analysis, the researchers "pool[ed] all studies [included in a given stage] into one group" instead of averaging the effect sizes (Shadish et al., electronic version, p. 7). This generated an effect size of .56 (SE = .04) for the studies in Stage 1, .52 (SE = .09) for studies in Stage 2, and .51 SE = .61 for the study in Stage 3 (Shadish et al.). In general, the results of the two analyses were comparable both with each other and with previous meta-analyses of treatment effectiveness (i.e., Smith et al., 1980) that had been conducted (Shadish et al.). This led Shadish et al. to conclude that, based on the studies included in the analysis, therapy provided in clinical settings is effective.
Nevertheless, "the effect sizes from clinic studies are about 10% smaller than over all [sic] therapy studies, so it is possible there is a very small decrease in effect size in clinic therapy, a possibility that... should [be] left open given the lack of good Stage 3 studies" (Shadish et al., electronic version, p. 7).

To summarize, based largely on the meta-analyses of Smith and Glass (1977), Smith et al. (1980), and the replications that followed – each designed to address various critiques of the original research efforts – the general consensus within the field today is that psychotherapy is effective and leads to an improvement in psychological status for many clients (Anderson, 1995; Barlow, 1996; Bergin & Garfield, 1994; Garfield, 1997; Glass & Kliegl, 1983; Hollon, 1996; Horvath & Luborsky, 1993; Howard, Kopta, Krause, & Orlinsky, 1986; Lambert, 1991; Lambert & Bergin, 1994; Lambert et al., 1986; Leon, Kopta, Howard, & Lutz, 1999; Martin et al., 2000; Marziali & Alexander, 1991; McNeilly & Howard, 1991; Miller et al., 1995; Mintz, Luborsky, & Cristoph, 1979; Najavits & Strupp, 1994; Parloff et al., 1986; Shadish et al., 1997; Shapiro & Shapiro, 1982a, 1982b, 1983; Stein & Lambert, 1995; VandenBos, 1996; Weinberger & Eig, 1999; Whiston & Sexton, 1993). While this conclusion clearly does not apply to newly developed models of treatment that have yet to undergo empirical testing (Lambert), it is widely agreed that the established cognitive, behavioral, dynamic, and humanistic modes of treatment, when administered by qualified professionals, are empirically shown to be effective (Glass & Kliegl; Lambert; Lambert et al.; Shapiro & Shapiro, 1982a). Indeed, in drawing conclusions
following a narrative review of major treatment outcome studies and meta-analyses, Lambert et al. indicated:

...the overall finding that psychological treatments are in general effective cannot be “explained away” by reference to methodological weaknesses in the data reviewed or in the reviewing method [i.e., meta-analysis]. A large number of controlled studies reveal a positive therapeutic effect when compared with no treatment; [sic] and very few reviewers disagree with this basic overall observation (p. 161).

It is important to note that despite the general consensus, some continue to question the effectiveness of psychotherapy. For example, Neil Jacobson (1995) argues that while efficacy studies, designed to “answer the question, ‘Can this psychotherapy work?’” (Leon et al., 1999, p. 1), do demonstrate statistically significant treatment effects in highly controlled clinical trials, such studies do not generate data regarding the effectiveness of treatment in typical clinical settings. Many practitioners have echoed this concern (Barlow, 1996; Howard, Moras, Brill, Martinovich, & Lutz, 1996; Leon et al.; Lutz, Martinovich, & Howard, 1999; Parloff et al., 1986; Persons & Silberschatz, 1998; Seligman, 1995; Wilson & Rachman, 1983). Moreover, Jacobson asserts the relevant point that statistically significant findings of treatment impact in either efficacy studies or effectiveness studies (which “seek to answer the question, ‘Does this psychotherapy work in real world situations?’” [Leon et al., p. 1]) are not an indication that the treatment will make a clinically significant difference in the lives of patients in general or in the life of any one client in particular. While this is certainly a
relevant argument, efficacy studies are the best available tool for demonstrating a
treatment's potential effectiveness (Chambless & Hollon, 1998; Hollon, 1996; Howard
et al., 1996; Smith et al., 1980). Nonetheless, it is clear that a larger number of well-
designed naturalistic and ideographic studies are clearly needed to demonstrate that
treatments are effective when administered in field settings, and with which patients
they are effective (Barlow; Hollon, 1996; Howard et al.; Leon et al.; Lutz et al., 1999;
Differential Effectiveness of Various Psychotherapies

While questions regarding the overall effectiveness of psychotherapy have essentially been answered, questions still remain over the comparative effectiveness of different treatment models both in general and with regard to specific populations (Beutler et al., 1994; VandenBos, 1996). Significant debate over differential treatment effectiveness began in 1975, in tandem with the controversy over the general effectiveness of psychotherapy, as a result of the findings of a comprehensive literature review conducted by Luborsky et al. in 1975 (Shapiro & Shapiro, 1982a; Smith et al., 1980).

Luborsky et al.’s (1975) extensive boxscore review (please refer to previous relevant section of this manuscript for a description of “boxscore” review methodology) analyzed 35 well-controlled research studies. Luborsky et al. compared at least two valid forms of psychiatric treatment that had been administered to “real” adult patients, most of whom were diagnosed by qualified, “experienced” psychotherapists as “neurotic,” but some of whom were considered to be “psychotic.” Applying clearly defined scoring criteria, Luborsky et al. rated the overall quality of each of the 35 studies selected in order to clarify the caliber of the research being drawn upon. Poorly designed studies with multiple confounds were excluded from the analysis (Luborsky et al.). Studies included in the analysis were sorted into seven groups reflecting the nature of the research comparison involved, and the treatment outcome results of the studies were counted.
In general, the findings indicated that most treatment models and modes of therapy performed about equally. Specifically, in the comparison of "behavior therapy vs. psychotherapy," six studies indicated the effectiveness of behavior therapy (primarily systematic desensitization) exceeded psychotherapy, 13 studies indicated that both studies performed equally well, and no studies indicated that psychotherapy outperformed behavioral therapy (Luborsky et al., 1975, p. 1001). In five studies selected, "client centered" therapies did not outperform "other traditional therapies" (mainly psychodynamic therapies), while one study indicated "other traditional therapies" were superior to "client centered therapies," and four studies indicated both treatment forms were equal in effectiveness (Luborsky et al.). No studies found minimal- or no-treatment controls to be more effective than psychotherapy, while 20 indicated that psychotherapy was superior to no treatment and 13 studies indicated equal results from the two conditions (Luborsky et al.).

The relative performance of chemotherapy and psychotherapy was contrasted in several ways. Treatment with psychotropic medication alone outperformed psychotherapy alone in seven studies, none indicated that psychotherapy outperformed medication, and one study found the two treatments to be equal (Luborsky et al., 1975). While in 13 studies the effect of combined medication and psychotherapy was larger than psychotherapy only, three studies indicated the treatments performed equally well, and none found psychotherapy superior to the combined treatment (Luborsky et al.). In 11 studies of the effectiveness of combined medication and psychotherapy in contrast
to medication alone, six indicated the superiority of the combined treatment while five showed the two forms of treatment to be equal (Luborsky et al.).

A comparison of studies researching the effects of "psychotherapy plus a medical regimen vs. medical regimen alone for psychosomatic conditions" was also completed (Luborsky et al., 1975, p. 1002). Of 11 studies selected, the results of nine showed the combined treatment to be superior; only one found the medical regimen better and one indicated the two treatment forms to be equivalent (Luborsky et al.).

Various psychotherapy modalities were also evaluated (Luborsky et al., 1975). Comparisons suggested that "time-limited vs. time-unlimited" treatments were equally effective: in five studies the two types of therapies resulted in similar outcomes; in two, time-limited treatments were shown to be more effective; and in one study the open-ended therapy condition was superior (Luborsky et al.). In an analysis of 13 studies contrasting individual psychotherapy outcomes with group psychotherapy outcomes, nine indicated the two modalities yielded similar outcomes, two showed group treatment to be more effective, and two demonstrated the superiority of individual treatment (Luborsky et al.).

The results of the boxscore comparisons led Luborsky et al. (1975) to conclude that psychotherapy was not only effective, but also its various forms yielded treatment effects that were about equal. The only exception to this rule was that combination treatments offering a blend of psychotherapy with either psychotropic medication or medical regimens seemed superior to either of the separate treatment components alone.
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(Luborsky et al.). This led Luborsky et al. to declare the now-famous “dodo bird verdict:”

Most comparative studies of different forms of psychotherapy found insignificant differences in proportions of patients who improved by the end of psychotherapy. It is both because of this and because all psychotherapies produce a high percentage of benefit... that we can reach a “dodo bird verdict” – it is usually true that “everybody has won and all must have prizes.” This predominance of tie scores appears when different forms of psychotherapy are compared with each other... (p. 1003, italics of original).

In explaining the “dodo bird verdict,” the researchers suggested that either ceiling effects or similarities - common factors - among the various psychotherapies might account for the findings of equivalence. Common factors identified by Luborsky et al. (1975) included the therapeutic relationship, the opportunity for catharsis, and the offering of a “plausible system of explanations for [the client’s] difficulties [along with] ... principles that may guide his future behaviors” (p. 1005). In fact, Luborsky et al. posited: “These common ingredients of psychotherapies may be so much more potent than the specific ones that it is wrong to lump them together in the sense of giving them equal weight” (p. 1006).

The conclusion that all of the major forms of psychotherapy are equally effective inspired a great deal of debate and a multitude of comparative outcome research studies (Barlow, 1996; Barrett & Wright, 1984; Bergin & Garfield, 1994; Beutler, 1991; Hollon, 1996; Jacobson, 1995; Lambert & Bergin, 1994; Lambert &
Okiishi, 1997; Lambert et al., 1986; Miller et al., 1995; Parloff et al., 1986; Shapiro & Shapiro, 1983; Shapiro & Shapiro, 1982b; Smith et al., 1980; Whiston & Sexton, 1993; Wilson & Rachman, 1983). At the present time, the preponderance of evidence indicates that the major forms of psychotherapy (cognitive, behavioral, psychodynamic, humanistic) are effective, but about equally so, when aggregate outcomes of treated patients are compared with the overall outcome of patients receiving either no treatment or a placebo control treatment (Barrett & Wright; Bergin & Garfield; Beutler et al., 1994; Beutler; Elkin, 1994; Glass & Kliegl, 1983; Goldfried & Wolfe, 1996; Gomes-Schwartz, 1978; Hollon; Horvath & Luborsky, 1993; Jacobson; Lambert & Bergin; Lambert & Okiishi; Lambert et al.; Martin et al., 2000; Miller et al., 1995; Norcross & Newman, 1992; Orlinsky et al., 1994; Orlinsky & Howard, 1986; Parloff et al.; Rounsaville et al., 1988; Shapiro & Shapiro, 1982b; Sloane et al., 1975; Smith et al.; Smith & Glass, 1977; Weinberger & Eig, 1999). As indicated by Miller et al.,

...30 [sic] years of clinical outcome research have [sic] not found any one theory, model, method or package of techniques to be reliably better than any other. In fact, virtually all of the available data indicate [sic] that the different therapy models, from psychodynamic and client-centered approaches to marriage and family therapies, work about equally well. This startling truth applies even to comparisons between talk therapies and the... advances in biological psychiatry. ...data comparing a variety of psychotropic medications with numerous psychological interventions indicate that they all achieve
roughly equivalent results. Furthermore, findings that once appeared to show the superiority of cognitive and behavioral therapies turned out to be artifacts of the measures being used and the confirmatory bias of the researchers (pp. 53-54).

Indeed, the findings in Smith et al. and in Smith and Glass indicated that differences in the effectiveness of behavioral therapies over verbal therapies disappeared when they controlled for the reactivity of the outcome measures used and allegiance effects (Glass & Kliegl, 1983). In a more recent meta-analysis of controlled studies examining the effectiveness of psychotherapy in the treatment of depression, Robinson, Berman, & Neimeyer (1990) also found initial differences in the effects of cognitive, behavioral, and verbal therapies that vanished when statistical methods were used to control researcher allegiance effects.

While the findings demonstrating overall equal treatment efficacy among the major forms of psychotherapy treatment are impressive, there is, nonetheless, some evidence that certain forms of psychotherapy are more effective than others, at least for patients with certain specific disorders (Goldfried & Wolfe, 1996; Lambert et al., 1986; Shapiro & Shapiro, 1982b) and for specific patient coping styles (Beutler et al., 1994). For example, there is substantial clinical evidence demonstrating the superiority of cognitive-behavioral methods in the treatment of specific phobias (Barlow, 1996; Lambert et al.; Whiston & Sexton, 1993), obsessive-compulsive disorder (Lambert et al.), sexual dysfunctions (Lambert et al.), and “childhood behavior disorders” (Lambert et al., p. 170). There is also evidence that family therapy, coupled with psychotropic
medication may be more effective in the treatment of schizophrenia (Barlow; Jacobson, 1995) and bi-polar disorder (Barlow) than other psychotherapy methods combined with psychotropic medications or psychotropic medications alone. Also, a specific form of cognitive-behavioral therapy called Dialectical Behavioral Therapy is likely to be more effective in the treatment of borderline personality disorder than any other psychotherapy treatment (Barlow; Linehan, Armstrong, Suarez, Allmon, & Heard, 1991; Linehan, Heard, & Armstrong, 1993; Linehan & Kehrer, 1993).

In addition, many argue that the absence of findings indicating differential effectiveness among the various psychotherapies does not indicate that such differences do not exist (Beutler, 1991; Goldfried & Wolfe, 1996; Horvath & Luborsky, 1993; Rounsaville et al., 1988; Smith et al., 1980; Whiston & Sexton, 1993; Wilson & Rachman, 1983). It is possible that the instruments used to measure treatment outcomes are too general to discern differential effects, or that instruments tapping the constructs that would demonstrate differential effectiveness have not yet been developed (Beutler; Goldfried & Wolfe; Horvath & Luborsky; Lambert et al., 1986; Smith et al.; Rounsaville et al.; Whiston & Sexton). “Methodological problems” (Whiston & Sexton, p. 47) have also been suggested as an explanation for the failure to find differential effects (Beutler; Rounsaville et al.; Sendlmeier & Gigerenzer, 1992; Whiston & Sexton). Last, Beutler and others (Luborsky, Chandler, Auerbach, Cohen, & Bachrach, 1971; Luborsky et al., 1986; Rounsaville, et al.; Wilson & Rachman,) cogently argue that important client, treatment, and therapist variables in specific combinations may interact to trigger substantial differences in treatment outcome.
While “the jury is still out” (Mays & Franks, 1980, p. 78) with regard to the presence of differential effectiveness between psychotherapy treatments, it is likely that research findings will eventually bear out Lambert et al.’s pragmatic conclusion: “...there are probably some specific technique effects, as well as large common effects across treatments...” (p. 202).

To summarize, it is clear from the empirical research that psychotherapy is effective in general, and that approximately 80% of the individuals who seek psychotherapy experience some improvement in the problem(s) targeted for treatment. Nonetheless, based on this evidence it is also clear that approximately 20% of the individuals treated with psychotherapy reportedly do not benefit from treatment. Because psychotherapy research has almost exclusively focused on proving the effectiveness of treatment, the fact that some individuals seeking treatment do not benefit from treatment and others experience a decline in psychological status during treatment has not frequently been acknowledged. Thus, it is unclear what percentage of patients simply do not benefit from treatment but remain at a steady level of pretreatment emotional and behavioral functioning (“treatment nonresponders”), and what percentage actually experience a decline in pretreatment psychological status during psychotherapy treatment (“negative responders”). Given the strong empirical evidence demonstrating that psychotherapy treatment is effective for the vast majority of those who pursue treatment, research into the phenomenon of treatment nonresponse and negative response is the next logical step.
THE COMMON FACTORS MODEL

The fact that the vast majority of comparative outcome studies, and the dismantling strategies applied to them (Ogles et al., 1999), have found little or no difference in the effectiveness of the various major forms of psychotherapy (Barrett & Wright, 1984; Bergin & Garfield, 1994; Beutler, 1991; Beutler et al., 1994; Duncan, Hubble, & Miller, 1997b; Elkin, 1994; Goldfried & Wolfe, 1996; Gomes-Schwartz, 1978; Hollon, 1996; Horvath & Luborsky, 1993; Jacobson, 1995; Jones, Cumming, & Horowitz, 1988; Lambert & Bergin, 1994; Lambert & Okiishi, 1997; Lambert et al., 1986; Martin et al., 2000; Miller et al., 1995; Norcross & Newman, 1992; Orlinsky et al., 1994; Orlinsky & Howard, 1986; Parloff et al., 1986; Robinson et al., 1990; Rounsaville et al., 1988; Shapiro & Shapiro, 1982b; Sloane et al., 1975; Smith et al., 1980; Smith & Glass, 1977; Weinberger & Eig, 1999) has led to three reactions within the field of psychotherapy. First, many researchers have continued the search for differences in effectiveness among the various major forms of psychotherapy (Beutler; Beutler & Clarkin, 1990; Hubble, Duncan, & Miller, 1999a; Jones et al., 1988; Lambert & Okiishi; Ogles et al.) in spite of the "massive evidence" (Bergin & Garfield, p.822) for treatment equivalence. These researchers espouse the belief that methodological problems with previous research studies have been the cause of equivalency findings (Asay & Lambert, 1999). Thus, they conclude, larger studies of strictly homogeneous participant samples receiving treatment from clinicians highly trained in the pertinent psychotherapy applied will lead to findings of differential
effectiveness when highly sensitive, "fine grained" psychometric instruments are used
to measure treatment outcomes (Beutler; Beutler & Clarkin; Ogles et al.). For the most
part, these research strategies have not yet succeeded in demonstrating the differential
effectiveness of various psychotherapies (Bergin & Garfield; Beutler; Elkin; Lambert
& Bergin; Lambert & Okiishi; Lambert et al., 1986; Martin et al.; for an exception see
Jones et al.).

Second, new models of psychotherapy are continuously being conceived of
with the intention of finally creating a supremely effective treatment useful either with
a specific patient population or, preferably, with the entire general population of clients
seeking treatment (Ogles et al., 1999; Parloff, 1986). While new treatments are
constantly being developed and promoted as being able to achieve "miraculous"
(Duncan et al., 1997b, p. 27) results prior to being subjected to empirical testing
(Lambert, 1992; Parloff et al., 1986), research has yet to demonstrate the superiority of
any such approaches (Duncan et al.; Lambert).

Last, the finding that all of the major psychotherapy treatments are about
equally effective in treating a broad range of disorders has led many to conclude that
the different models must all have certain ingredients in common that lead to
successful psychotherapy outcomes with approximately equal effect sizes (Asay &
Lambert, 1999; Barrett & Wright, 1984; Bergin & Garfield, 1994; Grencavage &
Norcross, 1990; Horvath & Luborsky, 1993; Hubble et al., 1999a, 1999b; Lambert &
Bergin, 1994; Lambert & Okiishi, 1997; Lambert et al., 1986; Luborsky et al., 1975;
Martin et al., 2000; Miller et al., 1995; Murphy et al., 1984; Ogles et al., 1999;
Orlinsky et al., 1994; Orlinsky & Howard, 1986; Parloff et al., 1986; Prochaska, 1999; Snyder et al., 1999; Strupp, 1986; Tallman & Bohart, 1999; Weinberger & Eig, 1999; Whiston & Sexton, 1993; for a dissenting opinion to this argument see Barlow, 1996).

While this approach was initially less popular than comparative outcome research seeking differential effects, in the past decade increasing numbers of researchers and theorists have begun to speculate about, and to conduct research into, the common effective factors shared by all of the major psychotherapy models (Asay & Lambert; Grenavage & Norcross; Hubble et al., 1999c; Martin et al.; Lambert & Okiishi; Murphy et al.; Orlinsky et al.; Orlinsky & Howard; Snyder et al.; Tallman & Bohart).

At the present time, “the question of whether the effects of therapy are the result of specific intervention strategies or techniques or whether they result from... nonspecific factors continues to be seriously debated” [italics from original source] (Jones et al., 1988, p. 48).
History of the Common Factors Approach

The notion that all forms of psychotherapy have certain effective elements in common, that lead to successful treatment outcome, was first posited by Saul Rosenzweig in 1936 (Frank & Frank, 1991; Goldfried & Newman, 1992; Grencavage & Norcross, 1990; Hubble et al., 1999b; Luborsky, 1995; Weinberger, 1995). As Luborsky noted, Rosenzweig, "...deserves a laurel in recognition of ... [offering] the first systematic presentation of the idea that the common factors across diverse forms of psychotherapy are so omnipresent that comparative treatment studies should show nonsignificant differences in outcomes" (p. 106, italics of original article). In spite of Rosenzweig's astute observation that different variants of psychotherapy share specific, effective elements, including "psychological interpretation, catharsis, and the therapist's personality" (Grencavage & Norcross, p. 372), following his initial treatise the notion that common factors underlie the effectiveness of psychotherapy was seriously addressed by "only a handful of writers" (Goldfried & Newman, p. 50) until 1961 in Jerome Frank's pivotal work, "Persuasion and Healing: A Comparative Study of Psychotherapy" (Frank & Frank; Hubble et al.; Miller et al., 1995; Strupp & Hadley, 1978; Weinberger).

The common factors of treatment first proposed by Frank in 1961 (as cited in Frank & Frank, 1991), and reiterated in a later revision of "Persuasion and Healing..." by Frank and Frank, involved: first, a healing relationship with a caring individual who was identified as a healer; second, a therapeutic, or healing environment; third, the
provision of an explanation for the troubled individual's problems; fourth, the prescription of specific healing rituals to resolve the individual’s problems, along with an offered rationale for the appropriateness and effectiveness of the ritual; and last, the emergence within the sufferer of positive expectations for change as a result of the previous conditions and the healer's belief in the value of these conditions. Moreover, Frank and Frank suggested, while “certain aspects of the psychotherapeutic scene strongly suggest that the features shared by psychotherapies far outweigh their differences,” this does not imply that psychotherapy is not potent (p. 39). Indeed, they state, “the active principles of psychotherapy may be quite powerful, though not specific for particular problems or diseases” (p. 39). As a result, Frank and Frank argue, all forms of psychotherapy can be “…legitimately refer[red] to... as a single entity...” (p. 39).

Research focused on demonstrating the effectiveness of psychotherapy in general, and the superior effectiveness of different psychotherapies in particular, initially eclipsed Frank’s common factors theory (Hubble et al., 1999b; Strupp & Hadley, 1978; Weinberger, 1995). Nonetheless, as previously noted, the failure to find any evidence demonstrating the superiority of any specific school of psychotherapy led theorists and researchers to believe that common factors might, in fact, be the essential properties responsible for successful psychotherapy outcome (Lambert & Okiishi, 1997; Murphy et al., 1984; Weinberger & Eig, 1999). By the late 1980s, “the identification of common factors across psychotherapeutic perspectives [had] been labeled one of the most significant trends in psychotherapy” (p. 372), and had “been
recognized as one of the three central thrusts of the psychotherapy integration movement” (Grencavage & Norcross, 1990, p. 372) that ensued (Bergin & Garfield, 1994; Grencavage & Norcross; Lambert & Bergin, 1994; Lambert et al., 1986; Parloff et al., 1986).

In the last decade, research investigating the common factors in psychotherapy has been focused on “...determining the core ingredients that different therapies share, with the... goal of creating more parsimonious and efficacious treatments based on those commonalities” (Norcross, 1999a, p. xviii). Again, this has been based on “...the clinical and empirical conviction... that commonalities are more important in accounting for therapy success than the unique factors that differentiate them” (Norcross, p. xviii). Thus, this research is not only focused on identifying the common factors that unite all psychotherapies, but also on “specifying what works best among them” (Norcross, p. xviii). A recent review of the empirical evidence regarding the common factors led Lambert and Bergin (1994) to conclude:

...based on our review of the evidence, ...what can be firmly stated is that factors common across treatments are accounting for a substantial amount of improvement found in psychotherapy patients. These... common factors may even account for most of the gains that result from psychological interventions. So, while we do not rule out the possibility of the additional contribution that variables specific to one school or technique might be found to have, at this point it is important to recognize that common factors are contributing a great deal to positive outcome (p. 163).
Common Factors: The Key Ingredients in Successful Treatment Outcome

While an in-depth discussion of the many common factors posited as potentially relevant in successful psychotherapy outcome, both as single entities and as a part of comprehensive models, is beyond the scope of this manuscript (the interested reader is directed to Bohart & Greenberg, 1997b; Grencavage & Norcross, 1990; Karasu, 1986; Kirsch, 1999a; Lambert & Bergin, 1994; Lambert et al., 1986; Martin et al., 2000; Norcross, 1999b; Orlinsky et al., 1994; Orlinsky & Howard, 1987; Orlinsky & Howard, 1986; Strupp, 1986; Weinberger, 1995) in examining the phenomenon of treatment nonresponse and negative response, it is important to identify the general therapeutic elements empirically demonstrated to contribute to successful treatment outcome for several reasons.

First, it is clear that the vast majority of psychotherapy patients respond to these effective elements (Hubble et al., 1999b; Lambert & Bergin; Lambert et al.; Lambert & Okiishi, 1997; Miller, 1993; Miller et al., 1995; Najavits & Strupp, 1994; Norcross, 1999a; Orlinsky et al.; Orlinsky & Howard; Parloff et al., 1986; Strupp). One cannot thoroughly understand the phenomenon of treatment nonresponse and negative response without first becoming cognizant of the elements of psychotherapy to which 80% to 90% of psychotherapy outpatients eventually respond (Howard et al., 1986; Whiston & Sexton, 1993).
Second, along the same lines, the conditions and factors associated with treatment success have been studied with far greater frequency than those associated with nonresponse and negative response. Indeed, most published studies investigate those aspects of psychotherapy leading to successful treatment outcomes (Barbrack, 1985; Orlinsky et al., 1994). Some of these “success factors” have been so thoroughly studied, and so consistently found to be associated with positive treatment outcome, that “they can be accorded the status of established facts” (Orlinsky et al., p. 352). While the presence of a specific factor linked to treatment success does not necessarily indicate that its absence is linked to either treatment nonresponse or negative response (Beutler & Crago, 1983; Mohr et al., 1990), a concept that will be further discussed later in this manuscript, in the little-researched area of treatment nonresponse and negative response, such potential links may be worthy of further investigation. Hence, identifying the variables that empirical research has consistently shown to be important in successful treatment outcome is an important initial step in clarifying those variables whose presence or absence may presage treatment nonresponse or negative response.

Last, by placing such “success factors” within the broad frame of a “common factors” model, an organizing structure is provided that clarifies the broad role of these variables across all of the major psychotherapy models. Thus, these factors are made relevant for, and applicable to, the practice of psychotherapy regardless of the specific treatment model used. The solid common factors approach that will be used here, espousing all of the significant common factors proposed and empirically tested

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(Brown, Dreis, & Nace, 1999; Kirsch, 1999a) under four broad categories, was developed by Hubble et al. (1999c) on the basis of Lambert’s work (1992).

Following an extensive review of the psychotherapy outcome literature, Lambert (1992) created, from his impression of the findings regarding “what empirical studies suggest about psychotherapy outcome” (p. 96) and the impact of key variables on psychotherapy outcome, an informed estimate of the relative contribution of several broad categories of variables to successful psychotherapy outcomes (M. J. Lambert, personal communication, July 21, 2000). Lambert (1992) conveyed his impression that (1) approximately 40% of psychotherapy outcome is generated by “extratherapeutic” factors – “[t]hose factors that are a part of the client (such as ego strength and other homeostatic mechanisms) and part of the environment (such as fortuitous events, social support) that aid in recovery regardless of participation in therapy” (p. 97); (2) about 30% of outcome is produced by “common factors” – “...a host of variables that are found in a variety of therapies regardless of the therapist’s theoretical orientation: [sic] such as empathy, warmth, acceptance, encouragement of risk taking, et cetera” (p. 97); (3) roughly 15% of change in psychotherapy occurs as a result of “techniques” – “[t]hose factors unique to specific therapies (such as biofeedback, hypnosis, or systematic desensitization)” (p. 97); and (4) close to 15% of therapeutic change is generated by “expectancy (placebo effects)” – “[t]hat portion of improvement that results from the client’s knowledge that he/she is being treated and from the differential
credibility of specific treatment techniques and rationale" (p. 97). According to Lambert:

[The] research literature [upon which these figures are based] is extensive, covering decades, and diverse in that it deals with a large range of adult disorders and a variety of research designs, including naturalistic observations, epidemiological studies, comparative clinical trials, and experimental analogues. However, no statistical procedures were used to derive the percentages [that follow]... which appear... somewhat more precise than is perhaps warranted (p. 98).

Thus, although the percentages derived are based on an educated estimate of the contribution that the above-noted variables make toward psychotherapy outcome, caution is advised in too literal an interpretation of the percentage impact estimated, as these figures are not based on any mathematical or statistical operations conducted, but rather upon Lambert's impressions that developed during an extensive literature review process (M. J. Lambert, personal communication, July 21, 2000).
"The Big Four" Common Factors

Expanding upon Lambert's (1992) work, Hubble et al. (1999b, 1999c) assembled under four major categories all of "...the major components or ingredients of therapy that provided the best bridge between the various schools [of psychotherapy]..." The result... significantly broaden[ed] the base of what ha[d] traditionally been called the common factors" (p. 8). The "Big Four" broad categories of common factors identified by Hubble et al. (1999b, p. 8) include (1) Client/Extratherapeutic factors; (2) Relationship factors; (3) Placebo, Hope, and Expectancy factors; and (4) Model/Technique factors. They are "each central to all forms of therapy[,] despite theoretical orientation, mode..., or dosage..., [and] underlie the effectiveness of therapy" (Miller et al., 1995, p. 56). It is important to note, however, that while Hubble et al. (1999c) and their contributing authors indicate that their discussion of the common factors is "based on empirical findings," it was, in many cases, not possible to verify these statements because frequently no references were provided to support this claim. Their findings have been validated where possible with supporting research literature obtained by the author of this manuscript. Thus, while the common factors model is evidently not as thoroughly empirically supported as Hubble et al. (1999c) may lead readers to believe, the notion that much of the common factors approach holds true is widely accepted in the professional community (Miller, 1993). Still, this does not discount the additional client, therapist, treatment, and/or extratherapeutic
factors that may contribute to psychotherapeutic change within certain populations, depending upon the techniques used and the specific disorders treated.

Client/Extratherapeutic Factors

"Client/Extratherapeutic" factors encompass the first of the "Big Four" Common Factors (Hubble et al., 1999b, pp. 8-9). Although psychotherapy research has typically not focused on client factors in psychotherapy (Grencavage & Norcross, 1990; Tallman & Bohart, 1999) and has instead investigated the impact of various aspects of the treatment model, modality, and therapist's use of technique (Garfield 1997; Miller, 1993), it is clear from the research of Lambert (1992) and others (Asay & Lambert, 1999; Auerbach & Johnson, 1977; Garfield; Grencavage & Norcross; Hubble et al., 1999c; Mintz et al., 1979; Orlinsky et al., 1994; Orlinsky & Howard, 1986; Tallman & Bohart) that the largest contributor to psychotherapeutic outcome is the client and his or her life circumstances (extratherapeutic factors).

Patient participation in the psychotherapy process.

In an extensive review of the process and outcome research literature spanning more than four decades, Orlinsky et al. (1994) found that a number of "client/extratherapeutic factors" have been empirically demonstrated to contribute significantly to successful treatment outcome. While an extensive description of the
studies reviewed by Orlinsky et al. is beyond the scope of this manuscript, a brief review of the relevant client characteristics associated with positive treatment outcome is helpful in understanding this common factor, which has been judged to have the most extensive impact on treatment outcome (Lambert, 1992; Miller, 1993). One client characteristic significantly associated with positive outcome, as noted by Orlinsky et al., involves the client’s active verbal participation in the psychotherapy process. Specifically, Orlinsky et al. state empirical research supports the finding that “patients who talk more [in psychotherapy sessions] tend to have better outcomes” (p. 291). Patients demonstrating “personal involvement in the patient role” (Orlinsky et al., p. 321) also were more likely to be successful in psychotherapy treatment (Cummings, Hallberg, & Slenon, 1994; Luborsky, 1994; Reandeau & Wampold, 1991; Rounsaville et al., 1988; Safran, Segal, Valis, Shaw, & Samstag, 1993; Steenbarger, 1994). Furthermore, the client’s focus on “life problems” and “core personal relationships” (Orlinsky et al., pp. 292, 296) during psychotherapy sessions was found to have a significant positive impact on treatment outcome (Asay & Lambert, 1999; Cummings et al., 1994; Miller; Orlinsky & Howard, 1986).
Patient’s affective response during therapy.

Orlinsky et al. (1994) and others (Castonguay, Goldfried, Wiser, Raue, & Hayes, 1996; Cummings et al., 1994; Mohr et al., 1990; Orlinsky & Howard, 1986; Safran et al., 1993; Steenbarger, 1994; Wiser & Goldfried, 1998) have found that the “total affective response” of the client during sessions, especially when the affective response is positive (although “negative affective response” was not specifically related to negative outcomes) (Orlinsky et al., p. 308) has a positive correlation with successful treatment outcome. Theories speculating the reasons for this correlation abound (Castonguay et al.; Steenbarger). Of these, the most likely explanation, provided by both “[r]esearch and theory” is that patients “are most open to change when they are in a state of emotional experiencing” (Steenbarger, p. 114).

Patient suitability for treatment.

Perhaps the most salient cluster of client characteristics associated with positive outcome, noted by Orlinsky et al. (1994), is “patient suitability” for treatment (p. 339). According to Orlinsky et al., “suitability” broadly comprised of a number of sub-factors. First, research findings indicate that “greater ego strength” (Orlinsky et al., p. 339) is associated with positive treatment outcome (Asay & Lambert, 1999; Cook, Blatt & Ford, 1995; Horvath & Luborsky, 1993; Kernberg, 1973; Kernberg et al., 1972; Luborsky, 1994; Luborsky et al., 1993; McLellan et al., 1994; Miller, 1993).
Second, “patients’ openness versus defensiveness” (Orlinsky et al., p. 339) is implicated in treatment outcome (Asay & Lambert; Cummings et al., 1994; Henry & Strupp, 1994; Miller; Reandeau & Wampold, 1991; Steenbarger, 1994), with “a significant positive association between patient openness and outcome” (Orlinsky et al., p. 339). Last, findings indicate that the client’s demonstration of “appropriate cognitive and behavioral processes” during treatment (Orlinsky et al., p. 295-296) is associated with successful treatment. This includes the client’s possession of adequate interpersonal skills (Asay & Lambert; Cummings et al.; Horvath & Luborsky; Luborsky; Kernberg; Miller; Orlinsky et al.; Piper, Joyce, McCallum, & Azim, 1998; Piper, McCallum, Joyce, Azim, & Ogrodniczuk, 1999; Steenbarger), “patient motivation” (Orlinsky et al., p. 321) for treatment (Asay & Lambert; Chisholm, Crowther, & Ben-Porath, 1997; Cook et al., 1995; Cummings et al.; Kernberg; March & Curry, 1998; Miller), and “patient cooperation” (Orlinsky et al., p. 308) with the therapeutic process (Chisholm et al., 1997; Cummings et al.; March & Curry; Miller; Safran et al., 1993; Steenbarger) versus “patient resistance,” which was found to be associated with “unfavorable outcomes,” (Orlinsky et al., p. 308). Others have also suggested the importance of such factors as the client’s premorbid level of self-esteem (Brehm & Smith, 1986), capacity for basic levels of trust (Henry & Strupp), propensity for introspection and insight (March & Curry; Miller; Safran et al.), psychological-mindedness (Horowitz, Rosenberg, & Bartholomew, 1993; Horvath & Luborsky; Piper et al., 1998), and self-monitoring (March & Curry; Miller).
Based on the preceding description of client traits associated with positive psychotherapy outcome, it is clear that “the patient’s possession of positive characteristics... permit[s] more constructive involvement in treatment. To those who have, much appears to be given” (Orlinsky et al., 1994, p. 343).

Extratherapeutic events.

Given that clients spend only a small proportion of their time in treatment (Thoits, 1985), it should be of no surprise that both research and theory indicate a client’s environment plays an important role in therapeutic outcome (Asay & Lambert, 1999; Grencavage & Norcross, 1990; Horvath & Luborsky, 1993; Hubble et al., 1999c; Jones et al., 1988; Lambert & Okiishi, 1997; Maione & Chenail, 1999; McLellan et al., 1994; Miller, 1993; Miller et al., 1995; Orlinsky et al., 1994; Orlinsky & Howard, 1986; Strupp 1980a, 1980b, 1980c, 1980d; Tallman & Bohart, 1999; Thoits).

Specifically, research findings indicate the magnitude and severity of stressors associated with work, social support systems, intimate relationships, and life events and circumstances significantly impact an individual’s sense of well-being (Asay & Lambert; Grencavage & Norcross; Horvath & Luborsky; Hubble et al.; Jones et al.; Maione & Chenail; McLellan et al.; Miller et al.; Orlinsky et al.; Orlinsky & Howard; Steenbarger, 1994; Strupp 1980a, 1980b, 1980c, 1980d; Tallman & Bohart; Thoits).

For example, research into the maintenance of treatment gains following brief therapy for depression indicates “several contextual factors appear to jeopardize the
maintenance of treatment gains, including the presence of stressful life events and levels of negative expressed emotion within the client household” (Steenbarger, p. 115). Conversely, “social support directly affects personal well-being and buffers emotional stresses” (Steenbarger, p. 115). It is clear that the client’s environmental context and life circumstances can have a powerful impact on treatment outcome, either in a positive, neutral, or negative direction.

Interactions of specific client factors.

As Beutler (1991) has suggested, it is very unlikely, in an endeavor as complex as psychotherapy, that the presence or absence of individual factors acting alone has a substantial impact on treatment outcome. More likely, Beutler and others (Miller, 1993) suggest, is the possibility that the interaction of certain important variables potentiate each other and thus have a significant impact on treatment outcome. For example, in a study of the impact of various client variables and extratherapeutic events on the outcome of cognitive behavioral therapy for patients with major depression, Spangler, Simons, Monroe, and Thase (1997) found

...that the interaction between a pre-onset negative interpersonal event and global-stable interpersonal attributional style was associated with higher levels of posttreatment depression. This result suggests that patients with interpersonal cognitive dysfunction in combination with interpersonal stressors
may respond less well to any treatment... [or] that they may respond less well to CBT (as compared with other treatments)... (p. 573).

Additional research in this area may eventually clarify the discrete patient and treatment variables that interact to magnify or reduce the impact of psychotherapy treatment.

Additional evidence.

Asay and Lambert (1999) also address the importance of the client in the psychotherapy change process. These researchers point out that research into psychotherapy outcomes utilizing control/minimal treatment condition groups demonstrates that between 18% to 67% (median 43%) of clients assigned to control group/minimal treatment conditions experience some degree of improvement in target symptoms being measured (p. 33). Asay and Lambert argue that this indicates that individuals seeking treatment are able to draw upon inter- and intra-personal resources in order to experience positive change even in the absence of potent psychotherapy interventions.
As previously noted, Lambert (1992) suggested that 40% of the variance in psychotherapy outcome can be attributed to client and “extratherapeutic” factors (p. 97). Tallman and Bohart (1999) go further, extending Lambert’s findings and indicating:

Lambert (1992)... reported... 40% of the outcome variance is due to extratherapeutic factors, which consist of the client and factors in the client’s life; 30% to common therapeutic factors, which primarily consist of relationship factors, or factors that occur through the relationship; 15% to techniques; and 15% to placebo [expectancy] factors. Considering... placebo factors are client factors (client self-healing through hope and belief), and clients contribute at least as much to the therapeutic relationship as... the therapist, Lambert’s figures... imply... the client is responsible for 70% or more of the outcome variance” (p. 95).

Brown et al. (1999) also indicate that client factors, considered in light of the other “Big Four” common factors, contribute about 70% to treatment outcomes (p. 399). This extrapolation is clearly an estimate of the portion of outcome determined by the client. Nonetheless, both research and theory, as well as common sense, support the notion that elements of the client’s personality, interpersonal skill set, and cognitive and affective functioning (intelligence, attributions, perceptions, flexibility/rigidity), as well as his or her environment (work, social support system, intimate relationship, life events) play an important role in therapeutic outcomes (Asay & Lambert, 1999; Grencavage & Norcross, 1990; Hubble et al., 1999c; Jones et al., 1988; Luborsky,
In summary, while the specific client factors that contribute significantly to treatment nonresponse and response will be identified, operationally defined, and discussed in greater depth later in this manuscript, it is important to note at this point that empirical research supports the notion that clients and their circumstances are major common factors that contribute significantly to successful psychotherapy outcome. This lends credence to the hypothesis that client factors play a significant role in the phenomenon of treatment response. It is thus reasonable to assume that a clinical profile of the client factors involved in treatment nonresponse and negative response would make a valuable contribution to the treatment outcome literature informing empirically supported clinical practice.

Relationship Factors

The second cluster of “Big Four” Common Factors in successful psychotherapy outcome is composed of “Relationship” factors (Hubble et al., 1999b, pp. 8-9). As previously noted, Lambert (1992) indicated that approximately 30% of outcome variance is accounted for by the “common factor” of the therapeutic alliance (p. 97). Others concur with this estimate, indicating that the therapeutic alliance accounts for 30% to 45% of outcome variance (Horowitz, Rosenberg, Baer, Ureño, and Villaseñor, 1988; Horowitz, Rosenberg, & Kalehzan, 1992). From Lambert’s
description, these elements

...largely coincide... with what [have] been typically called the common factors in the literature. These represent a wide range of relationship-mediated variables found among therapies no matter the therapist's theoretical persuasion. Caring, empathy, warmth, acceptance, mutual affirmation, and encouragement of risk taking [sic] and mastery are but a few. Except what the client brings to therapy, these variables are probably responsible for most of the gains resulting from psychotherapy interventions (Hubble et al., 1999b, p. 9).

Thus, "relationship factors" are judged by Lambert to have only slightly less impact on therapeutic outcome than client factors.

Many have noted that the therapeutic relationship, both in its component parts and as a whole, is the most thoroughly empirically researched of all of the common factors (Asay & Lambert, 1999; Bachelor & Horvath, 1999; Bergin, 1997; Gaston, 1990; Hubble et al., 1999c; Kolden, Howard, & Maling, 1994; Lambert, 1992; Lambert & Bergin, 1994; Lambert & Okiishi, 1997; Lambert et al., 1986; Luborsky, 1994; Luborsky et al., 1993; Miller et al., 1995; Orlinsky et al., 1994; Orlinsky & Howard, 1986; Patterson, 1984). The consensus of this vast body of research literature, estimated by Orlinsky et al. to exceed 1,000 findings (p. 360), is that the therapeutic "bond as a whole and [in] its various aspects – role investment, interactive coordination, communicative contact, and affective attitude" (p. 360) – is strongly related to therapeutic outcome (Allen et al., 1996; Asay & Lambert; Beutler & Clarkin, 1990; Bickman, 1999; Bohart & Greenberg, 1997a; Brown & O'Leary, 2000;
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Cummings et al., 1994; Gaston; Henry, Strupp, Schacht, & Gaston, 1994; Hentschel, Kiesling, Heck, & Willowit, 1992; Horowitz et al., 1988; Horvath & Luborsky, 1993; Horvath & Symonds, 1991; Hubble et al., 1999a, 1999c; Kolden et al., 1994; Krupnick et al., 1996; Lambert; Lambert & Bergin; Lambert et al.; Luborsky; Luborsky, Woody, McLellan, O’Brien, & Rosenzweig, 1982; Maione & Chenail, 1999; Mallinckrodt, 1993; Martin et al., 2000; Miller, 1993; Miller et al.; Muran et al., 1995; Najavits & Strupp, 1994; Ogles et al., 1999; Orlinsky et al., Orlinsky & Howard; Patterson; Piper et al., 1998; Reandeau & Wampold, 1991; Safran et al., 1993; Saunders, Howard, & Orlinsky, 1989; Steenbarger, 1994; Svensson & Hansson, 1991; Truax et al., 1966; Weinberger, 1995; Weinberger & Eif, 1999; Wolfe & Goldfried, 1988; Zuroff et al., 2000). The bond “may be positive or negative in character, and can importantly support or interfere with the aims of therapy” (Orlinsky et al., p. 279).

Thus, in investigations of either successful psychotherapy outcome or treatment nonresponse and negative response it is important to consider the role of this significant common factor, regarded to be therapeutic even in the absence of further technical interventions (Henry & Strupp, 1994; Henry et al., 1994; Kolden et al.; Krupnick et al.; Martin et al., Saunders et al., 1989; Truax et al.).

In this segment, aspects of the therapeutic bond contributing to successful psychotherapy outcomes will be addressed; an examination of the role of the therapeutic bond in treatment nonresponse and negative response will be considered later in this manuscript. The overall therapeutic relationship is composed of therapist contributions and patient contributions (Allen et al., Henry & Strupp, 1994; Horvath &
Therapist’s contribution to the therapeutic bond.

It is clear from the research literature that the therapist makes a substantial contribution to the therapeutic bond (Allen et al., 1996; Gaston, 1990; Henry & Strupp, 1994; Kolden et al., 1994; Luborsky, 1994; Marmar, Horowitz, Weiss & Marziali, 1986; Martin et al., 2000; Miller, 1993; Najavits & Strupp, 1994; Orlinsky et al., 1994; Patterson, 1984; Reandeau & Wampold, 1991; Steenbarger, 1994; Truax et al., 1966). Overall, the therapist’s role in establishing a solid therapeutic bond is pivotal in successful treatment outcome, as noted by Brown and O’Leary (2000):

The ability of the therapist to create a positive working relationship with the client can set the stage for the client’s willingness and ability to change. At some level, this clearly involves agreeing on the tasks and goals of the therapy. The relationship between client and therapist can lay a foundation not only for modifying one’s cognitions but also for modifying one’s actions and affective state (p. 344).

Thus, as Brown and O’Leary indicate, in the formation of a successful therapeutic bond, the therapist engages the client in collaboratively determining the goals of treatment and the requisite tasks associated with accomplishing the identified treatment
goals (Horvath & Luborsky, 1993; Kolden et al.; Martin et al.; Orlinsky et al.; Saunders et al., 1989). Orlinsky et al. refer to this as the "task-instrumental side of the therapeutic bond" (p. 321). In successful psychotherapy treatment, the therapist is actively engaged in this process and conveys to the patient a sense of confidence in his or her ability to meet treatment goals through relevant, effective therapeutic tasks (Horvath & Luborsky, 1993; Kolden et al.; Luborsky; Orlinsky et al.; Miller; Najavits & Strupp; Reandeau & Wampold; Saunders et al., Steenbarger); Orlinsky et al. call this aspect of the therapeutic bond the therapist's "personal role investment" (p. 321).

The therapist also guides the process of developing the "affective" (Martin et al., 2000, p. 438), or "social-emotional side of the therapeutic bond" (Orlinsky et al., 1994, p. 321). In successful psychotherapy outcomes, the therapist's offered "empathic understanding" and "affirmation" (p. 326), which is composed of "acceptance, nonpossessive warmth, ...positive regard" (p. 326) and "therapist self-congruence (genuineness)" (p. 339) lead to the establishment of "good communicative contact" (p. 326) and rapport with the patient (Orlinsky et al.). The bond that is thus formed lays the groundwork for successful therapeutic change (Henry & Strupp, 1994; Horvath & Luborsky, 1993; Kolden et al., 1994; Miller, 1993; Orlinsky et al; Patterson, 1984; Reandeau & Wampold, 1991; Truax et al., 1966).
Patient’s contribution to the therapeutic bond.

Although theory and research has traditionally focused less on the patient’s contribution to the therapeutic bond, it is clear that the patient plays a significant role in the formation of the therapeutic relationship (Allen et al., 1996; Cummings et al., 1994; Gaston, 1990; Henry & Strupp, 1994; Horvath & Luborsky, 1993; Kernberg, 1973; Kolden et al., 1994; Krupnick et al., 1996; Luborsky, 1994; Mallinckrodt, 1993; Marmar et al., 1986; Miller, 1993; Orlinsky et al., 1994; Reandeau & Wampold, 1991; Safran et al., 1993; Steenbarger, 1994). Just as clinicians must be invested in the therapist role, patients must also commit to the patient role, as previously noted (Allen et al.; Cummings et al.; Horvath & Luborsky; Kolden et al.; Miller; Orlinsky et al.; Safran et al.; Saunders et al., 1989). This has been called “patient role engagement” (Orlinsky et al., p. 321). In successful psychotherapy treatment, the patient is motivated and cooperative with the therapist and the therapeutic process (Allen et al.; Cummings et al.; Henry & Strupp; Horvath & Luborsky; Kernberg; Kolden et al.; Luborsky; Miller; Orlinsky et al.; Safran et al.; Saunders et al.; Steenbarger), is able to collaborate with the therapist in determining the goals and tasks of treatment without becoming dependent on the therapist or controlling of the process (Allen et al.; Cummings et al.; Horvath & Luborsky; Kolden et al.; Miller; Orlinsky et al.; Reandeau & Wampold, 1991; Steenbarger), and is able to perceive the therapist’s mutual investment in the therapeutic process (Asay & Lambert, 1999; Beutler & Clarkin, 1990; Bohart & Greenberg, 1997a; Cummings et al.; Horvath & Luborsky; Luborsky;
Maione & Chenail, 1999; Miller; Miller et al., 1995; Orlinsky et al.; Orlinsky & Howard, 1986; Saunders et al., 1989; Tang & DeRubeis, 1999).

Furthermore, the patient plays an important part in establishing "good communicative contact" (Orlinsky et al., 1994, p. 326) with the therapist. In successful psychotherapy treatment, the patient is "expressive" (Orlinsky et al., p. 326), openly discussing the focal issues in treatment and sharing his or her affective experience with the therapist as well (Allen et al., 1996; Cummings et al., 1994; Henry & Strupp, 1994; Horvath & Luborsky, 1993; Kolden et al., 1994; Luborsky, 1994; Miller, 1993; Orlinsky et al.; Reandeau & Wampold, 1991; Steenbarger, 1994). The patient is able to perceive and accept the therapist's offered empathy and reflected affirmation in response to the patient's verbal and affective communications (Allen et al.; Asay & Lambert, 1999; Beutler & Clarkin, 1990; Bohart & Greenberg, 1997a; Cummings et al.; Horvath & Luborsky; Kolden et al.; Luborsky; Maione & Chenail, 1999; Miller; Miller et al., 1995; Orlinsky et al.; Orlinsky & Howard, 1986; Saunders et al., 1989); through this process, the patient comes to feel understood (Allen et al.; Cummings et al.; Horvath & Luborsky; Kolden et al.; Luborsky; Orlinsky et al.; Miller; Saunders et al.). Optimally, the patient is able to respond to the therapist with empathy and expresses "affirmation toward the therapist (typically respect or liking)" as well (Orlinsky et al., p. 326). Indeed, the research literature indicates that "patient affirmation" of the therapist "is more consistently associated with outcome than is therapist affirmation" (Orlinsky et al., p. 326) of the client. Overall, the empirical literature clearly indicates that the patient plays a significant role in the establishment
of a successful therapeutic bond in positive treatment outcome (Allen et al.; Asay & Lambert; Beutler & Clarkin; Bohart & Greenberg; Cummings et al.; Henry & Strupp; Horvath & Luborsky; Kolden et al.; Krupnick et al., 1996; Luborsky; Maione & Chenail; Miller; Miller et al.; Orlinsky et al.; Orlinsky & Howard; Reandeau & Wampold, 1991; Safran et al., 1993; Saunders et al.; Steenbarger).

Interaction of client and therapist variables related to the therapeutic bond.

It is clear that the formation of a solid therapeutic bond that will lead to positive treatment outcome is a joint effort, led and coordinated by the therapist but attainable only with the patient's mutual effort (Allen et al., 1996; Cummings et al., 1994; Gaston, 1990; Horvath & Luborsky, 1993; Kolden et al., 1994; Luborsky, 1994; Marmor et al., 1986; Miller, 1993; Orlinsky et al., 1994; Reandeau & Wampold, 1991; Safran et al., 1993; Saunders et al., 1989; Steenbarger, 1994; Strupp, 1980a, 1980b, 1980c, 1980d). It is not surprising, then, that the research findings indicate that "reciprocal role investment in the therapeutic relationship... [is] positively related to outcome" (Orlinsky et al., p. 321).

It is also clear that the failure of either the therapist or the patient to make the requisite contributions to the bond will hinder its formation, and will thus jeopardize successful treatment outcome (Allen et al., 1996; Colson, Lewis & Horwitz, 1985; Gaston, 1990; Kernberg, 1973; Luborsky, 1994; Miller, 1993; Najavits & Strupp, 1994; Reandeau & Wampold, 1991; Safran et al., 1993; Saunders et al., 1989;
Steenbarger, 1994). This is highlighted by the finding that the rapport that develops between the therapist and patient is founded on “good communicative contact” resulting from “cycle[s] of communicative contact consist[ing] of complementary phases of expressiveness and empathic understanding in each participant” (Orlinsky et al., 1994, p. 326). The “reciprocal affirmation” (Orlinsky et al., p. 326) that results from this process is consistently, significantly, and positively related to outcome in a consensus of the literature (Horvath & Luborsky, 1993; Kolden et al., 1994; Orlinsky et al.; Saunders et al.). These findings lead to the logical hypothesis that the failure of either participant in the therapeutic process to participate effectively in the building or maintenance of the therapeutic bond is a major factor in treatment nonresponse and negative response (Allen et al.; Cummings et al., 1994; Miller; Saunders et al.; Steenbarger; Strupp 1980a, 1980b, 1980c, 1980d).

**Overall quality of the therapeutic bond.**

Rather than investigating particular components of the therapeutic bond, many researchers have studied the “global quality of the therapeutic bond” (Orlinsky et al., 1994, p. 308). Three noteworthy reviews of the empirical literature regarding the global quality of the therapeutic alliance capture the overall findings of this substantial body of research.
First, in their extensive review of the process and outcome research literature spanning more than four decades, Orlinsky et al. (1994) "...summarize[d] a total of 132 findings on the association of outcome with the global quality of the therapeutic bond" (p. 208). Orlinsky et al. found that, in aggregate, "the findings showed a significant positive association with outcome (overall 66%)," and that individually, the impact of the therapeutic alliance generated an "ES [effect size] [of] .25 or more... [in] at least one-fourth" of the studies surveyed (p. 308).

Horvath and Symonds (1991) reached a similar conclusion in their meta-analysis of studies researching the therapeutic alliance. These researchers conducted a meta-analysis of twenty-four studies, conducted over the eleven-year span prior to their review, investigating the therapeutic alliance as a common factor in treatment outcome (Horvath & Symonds). Results of their analysis indicated "the [therapeutic alliance] is a relatively robust variable link[ed]... to outcome" by an effect size of .26 (Horvath & Symonds, p. 146). This figure is nearly identical to that of Orlinsky et al. (1994) in their massive review of the process and outcome literature.

Last, Martin et al. (2000) conducted "an updated meta-analytic review" (p. 438) of the therapeutic alliance literature in follow-up to the work of Horvath and Symonds (1991). Incorporating the findings of 24 studies analyzed by Horvath and Symonds and 60 additional studies of the therapeutic alliance published since Horvath and
Symonds’ review, Martin et al. found that the “alliance is moderately related to outcome (r = .22)” (p. 446). In addition, Martin et al. stated:

With the improved quality of recent investigations of the relationship..., there is increased confidence that this finding is not a result of confounds in the literature. The direct association between the alliance and outcome identified in this empirical review is supportive of the hypothesis that the alliance may be therapeutic in and of itself... . In other words, if a proper alliance is established between a patient and therapist, the patient will experience the relationship as therapeutic, regardless of other psychological interventions. [...] What is evident from this review is that the strength of the alliance is predictive of outcome, whatever the mechanism underlying the relation (p. 446).

Thus, the findings of Orlinsky et al. (1994), Horvath and Symonds (1991), and Martin et al. (2000), as well as those of the numerous studies upon which these reviews are based, provide substantial evidence that the therapeutic relationship is an important common factor in therapeutic outcome. It is perhaps this sound empirical backing that has inspired “virtually all schools of [psycho]therapy” (Lambert & Bergin, 1994, p. 164) to emphasize the importance of the therapeutic alliance in both psychotherapy theory and in psychotherapy practice (Asay & Lambert, 1999; Beutler & Clarkin, 1990; Bohart & Greenberg, 1997a; Gaston, 1990; Horvath & Luborsky, 1993; Horvath & Symonds; Krupnick et al., 1996; Luborsky, 1994; Miller et al., 1995; Wolfe & Goldfried, 1988).
In summary, while the specific relationship factors most pertinent to treatment nonresponse and negative response will be identified, operationally defined, and discussed at length in a proceeding segment of this manuscript, it is important to emphasize at this point that considerable empirical research supports the powerful impact of the therapeutic relationship on successful psychotherapy outcome. This is particularly true when the client's perception of the relationship is measured (Asay & Lambert, 1999; Beutler & Clarkin, 1990; Bohart & Greenberg, 1997a; Cooley & LaJoy, 1980; Horvath & Luborsky, 1993; Horvath & Symonds, 1991; Krupnick et al., 1996; Luborsky, 1994; Maione & Chenail, 1999; Martin et al., 2000; Miller et al., 1995; Ogles et al., 1999; Orlinsky et al., 1994; Orlinsky & Howard, 1986; Patterson, 1984; Saunders et al., 1989; Tallman & Bohart, 1999). Thus, there is strong support for the therapeutic alliance as a common factor in psychotherapy outcome, supporting "relationship factors" as one of the "Big Four Common Factors" in Hubble et al.'s (1999b) common factors model. A logical assumption that follows is that the global quality of the therapeutic relationship, as well as aspects of its components, may be a significant factor in the treatment nonresponse and negative response phenomenon.
Profile of Responders, Nonresponders, and Negative Responders

Placebo, Hope, and Expectancy

Essentially client variables comprise “Placebo, Hope, and Expectancy,” the third of the “Big Four” Common Factors (Hubble et al., 1999b, p. 9), which contribute approximately 15% to successful treatment outcome (Lambert, 1992). As previously noted, Frank (1961, in Frank & Frank, 1991) was the first to introduce the notion of hope, or “placebo effects” (p. 134) as a potent element of psychotherapy (Frank, 1978; Jones et al., 1988; Hubble et al.; Snyder et al., 1999; Weinberger & Eig, 1999).

According to Hubble et al.,

...this class of factors refers to the portion of improvement deriving from clients’ knowledge of being treated and assessment of the credibility of the therapy’s rationale related techniques. Expectancy parallels Frank and Frank’s (1991) idea that in successful therapies both client and therapist believe in the restorative power of the treatment’s procedures or rituals. These curative effects, therefore, are not thought to derive specifically from a given procedure; they come from the positive and hopeful expectations that accompany the use and implementation of the method (pp. 9-10).

The positive impact of expectancies on successful psychotherapeutic outcome has been demonstrated both empirically (Asay & Lambert, 1999; Barker, Funk, and Houston, 1988; Fennell & Teasdale, 1987; Garfield, 1994; Howard et al., 1986; Howard et al., 1996; March & Curry, 1998; Miller, 1993; Palace, 1999; Price & Barrell, 1999; Schoenberger, 1999; Truax et al., 1966; Weinberger & Eig, 1999) and
anecdotally (Duncan, Hubble, & Miller, 1997a, 1997b). For example, Barker et al. (1988) conducted a meta-analysis of the differential effectiveness of bona fide psychotherapy, minimal-treatment control conditions, and no-treatment control conditions. The researchers found, after imposing statistical controls that ensured positive expectancies for improvement were equal across the three study groups, that while psychotherapy clients in bona fide treatments made the most significant gains (ES = 0.5 SD over minimal-treatment controls), individuals in minimal-treatment control groups also made solid gains (ES = 0.5 SD over no-treatment controls). Citing this study, Snyder et al. (1999) concluded, “[o]bviously, participation in the common factors control group enhanced belief in the capacity to change positively over and above the no-treatment control group” (p. 186), while the administration of specific treatments allowed clients in the bona fide psychotherapy groups to achieve benefits over and above the gains generated by expectancy alone.

Moreover, using archival treatment progress data gathered from two large (N=151, N=148) samples of patients being treated in outpatient clinics, Howard et al. (1986) “...plot[ted]... the actual percentage of patients improved as a function of [the] number of sessions” of outpatient psychotherapy treatment (p. 160). Based on a statistical extrapolation of this data, Howard et al. demonstrated that “10% to 18% of patients could be expected to have shown some improvement before the first session of psychotherapy, simply as a function of initiating contact with the therapist or clinic” (p. 162). These researchers suggested that the decision to begin psychotherapy and to follow-through in scheduling an appointment generated clients’ positive expectations
and countered the significant feelings of demoralization that drive most individuals into psychotherapy treatment (Frank & Frank, 1991; Howard et al., 1996), which thus produced modest improvement in clients’ subjective feelings of well-being even before they had attended the first psychotherapy session.

Snyder et al. (1999) explain that expectancies generate clinical improvement via the following mechanisms:

...the four [common] factors work to produce cognitions that make the client’s therapeutic goals more viable. In general, the therapeutic relationship and setting in which treatment occurs foster agency thinking (e.g., “I can do it.”), whereas the particular rationale and therapeutic ritual act to enhance pathways thinking (e.g., “Here’s how I can do it.”). The resulting hope... is predictive of more favorable therapeutic outcomes” (p. 183, italics of original work).

Indeed, “agency thinking” and “pathways thinking” are critical aspects of effective problem-solving, which has been shown to be a key factor in successful recovery from depression (Dixon, 2000). Thus, the encouragement of hope, positive expectancies, and more effective problem-solving within is likely to facilitate positive psychotherapy outcome (Kirsch, 1999b; Weinberger & Eig, 1999). Nonetheless, positive expectancies in the absence of psychotherapy treatment are not sufficient to maintain the initial gains generated (Snyder et al., 1999; Weinberger & Eig). Snyder et al. suggest that while hope/expectancies do typically allow clients to experience an initial improvement in the symptoms bringing them into treatment, bona fide psychotherapy treatment is necessary to allow clients to solidify these gains, to develop
new mechanisms for coping with the problems at hand, and to glean further benefits from the psychotherapy process.

Thus, while making a substantially smaller contribution to successful psychotherapy outcome than do "Client/Extratherapeutic Factors" and "Relationship Factors," the common factors involved in generating "Placebo, Hope, and Expectancy" effects that are a part of all psychotherapies do play an important role in the healing process (Cummings et al., 1994; Kirsch, 1999b; Krupnick et al., 1996; Lambert, 1992; Miller, 1993; Snyder et al., 1999; Stiles, Agnew-Davies, Hardy, Barkham, & Shapiro, 1998; Truax et al., 1966; Weinberger & Eig, 1999). It is also important to note that researchers and theorists have suggested that these factors play a crucial role at the beginning of the psychotherapy treatment process, serving essentially as a catalyst for later improvements generated by the more technical aspects of the psychotherapy process (Snyder et al.; Howard et al., 1996). Some have even suggested that the improvement clients experience as a result of placebo effects forms the foundation upon which all other changes in treatment are built; should these early improvements not take hold, treatment nonresponse or negative response may ensue (Howard et al.). It is clear, then, that a thorough investigation of the treatment nonresponse and negative response phenomenon should include an analysis of the role played by placebo effects.
Profile of Responders, Nonresponders, and Negative Responders

Model/Technique Factors

The psychotherapy "Model/Technique" factors that form the essence and substance of all formal psychotherapy treatment models (Hubble et al., 1999b), yet are basically distinct to each specific model (Hubble et al.; Lambert, 1992) comprise the last of the "Big Four Common Factors." Approximately 15% of psychotherapy outcomes (Hubble et al.; Lambert; Lambert et al., 1986; Miller et al., 1995) can be attributed to these factors.

According to Hubble et al. (1999b), although model/technique factors are "unique" (p. 10) to each school of thought, these variables can still be considered "common factors" because

...[t]hey include a rationale, offer an explanation for the client’s difficulties, and establish strategies or procedures to follow for resolving them. Depending on the clinician’s theoretical orientation, different [psychotherapy] content is emphasized. Nonetheless, most therapeutic methods... share the common quality of preparing clients to take some action to help themselves. In particular, therapists expect their clients to do something different — to develop new understandings, feel different emotions, face fears, or alter old patterns of behavior... (p. 10).
Essentially, Hubble et al. (1999a, 1999b) incorporate the seminal concepts of Jerome Frank (Frank & Frank, 1991) – namely that all psychotherapy models/techniques offer an explanation for the problems that the client is grappling with and offer plausible healing rituals that will lead to the resolution of the problems in question – with newer concepts. Specifically, Hubble et al. (1999a, 1999b) point out that all psychotherapies share the common element of the therapist’s expressed expectation that the client will make changes in his or her existing patterns of cognition, affect, behavior, or some combination thereof (Miller et al., 1995; O’Hanlon, 1999). Others (Dowd et al., 1999) have echoed Hubble et al.’s (1999a, 1999b) sentiments, indicating that a major point of commonality in all forms of treatment is the expectation that the client will “do something different” during the course of treatment in order to resolve the problems at hand. In addition, during the course of therapy clients have opportunities to practice enacting the changes that they have been encouraged to make in a safe, protected environment (Hubble et al., 1999a, 1999b; Miller et al.).

Almost all forms of psychotherapy also provide clients with the opportunity to talk about their problems, although various psychotherapy models emphasize this component to a greater or lesser degree (Weinberger & Eig, 1999). While different focal topics, deemed to be therapeutic, are emphasized, the essential element of the client discussing his or her problems in the therapeutic conversation can be considered a common factor (Weinberger & Eig). The therapeutic conversation provides clients
with the opportunity to face, often repeatedly, what is upsetting them (Weinberger & Eig). This may explain the findings of Pennebaker (1989) and others (Burton, Parker, & Wollner, 1991; Harvey, Orbuch, Chwalisz, & Garwood, 1991; Segal & Murray, 1994) indicating that writing or talking about negative events or traumatic situations leads to demonstrable improvement in physiological psychological status (Tallman & Bohart, 1999; Weinberger & Eig).

Thus, while the various models of psychotherapy emphasize different types of interventions, at the heart of these interventions lies the expectation that clients will “do something different” in dealing with their problems, will make changes during the treatment process, and will confront their problems, typically through detailed discussions with a psychotherapist. All of these factors combine to mobilize the client to begin taking concrete steps toward change (Frank & Frank, 1991; Howard et al., 1996; Hubble et al., 1999a, 1999b; Miller et al., 1995). However, it is also important to note that only the legitimate, empirically-tested interventions of the major psychotherapy models are considered to make the noted 15% contribution to treatment outcome (Lambert, 1992; Lambert et al., 1986).

Although most clinicians would find it surprising and fundamentally counter-intuitive in the increasingly technique-driven and manualized field of clinical psychology (Asay & Lambert, 1999; Brown et al., 1999; Hubble et al., 1999a; Lambert et al., 1986; Miller et al., 1995; Ogles et al., 1999) that model and technique factors play such a comparatively small role in psychotherapy outcomes, the preponderance of evidence does seem to support this conclusion (Brown et al.; Ogles et al.; Orlinsky et
al., 1994; Orlinsky & Howard, 1986) with "overwhelming consistency" (Ogles et al., p. 209). For example, in Orlinsky et al.'s comprehensive review of more than 100 studies examining the relationship between psychotherapy process and outcome, in

...337 independent relationships between an intervention and outcome... [there was] evidence both for and against the relationship between therapist interventions and outcome. [...] [Overall,] ... correlations between therapist interventions and client outcome [were] simply insufficient to rule out common factors as the primary creators of client change (Ogles et al., p. 214).

Orlinsky et al. do point out that the research literature indicates three specific forms of treatment intervention have a significant, positive effect on treatment outcome when applied by a "skillful therapist" (p. 360). In discussing these findings, it is important to note that Orlinsky et al. may not have taken many techniques unique to certain schools of treatment into account, for they state, "[t]echniques specific to behavioral, cognitive, and other therapies are addressed in other chapters in this volume" (p. 306, footnote). Thus, it is difficult to ascertain the inclusion criteria used by the authors in arriving at their conclusions with regard to the three specific treatment techniques described (Orlinsky et al.).

First, Orlinsky et al. (1994) state, "[t]he technique of experiential confrontation (e.g. the Gestalt two-chair dialogue) is... [a] consistently effective mode of intervention" (p. 307, italics from original source). According to Orlinsky et al., this intervention "shows a significantly positive association with outcome in nearly 70% of
22 findings drawn from 11 studies” (p. 308), making it “a potent form of intervention” (p. 359).

Second, “[i]nterpretation... also emerged as a rather effective mode of intervention in [the] recent studies” reviewed by Orlinsky et al. (1994, p. 307, italics of original source). It is important to note, though, that the researchers stated that certain “findings also indicate that there are circumstances in which interpretation should not be used” (p. 307) without expanding upon this statement. Also, in light of the fact that the term “interpretation” has various connotations depending upon the theory/model in which it is used, the failure of Orlinsky et al. (1994) to articulate their operational definition of the term causes their statement regarding the intervention to be unclear (i.e., in footnotes to study summary charts on page 303, Orlinsky et al. indicate that “transference interpretations,” “explanation of anxiety” as an interpretation, and “genetic... interpretations” are all included in this category, despite the fact that these are likely to have vastly different meanings and to be used in different models of treatment).

Last, Orlinsky et al. (1994) state that “[t]he most impressive record of effectiveness has been established for the technique of paradoxical intention” in the research literature (p. 306, italics of original source). In fact, they indicate, in “11 studies [of paradoxical intention]... all 13 findings showed significantly positive associations with outcome, and 2 [sic] meta-analyses [also] show[ed] substantial effect sizes” (pp. 306-307). Based on this evidence, Orlinsky et al. conclude that “[t]he experimental evidence on paradoxical intention is remarkably consistent,
demonstrating a very robust association with outcome in situations where it can be used appropriately" (p. 359, italics of original source). Again, it is important to note that the authors fail to state an operational definition for this intervention, leaving its definition open to interpretation. Despite the noted shortcomings in the Orlinsky et al. study, it does seem that technical interventions do take a back seat to the substantial number of “Client Factors” and “Relationship Factors” which, in their review, exert a substantially larger influence on successful psychotherapy outcome.

Despite the evidence that model/technique factors play a smaller role in psychotherapy outcomes than clinicians and researchers have historically, and intuitively, thought (Brown et al., 1999; Grencavage & Norcross, 1990; Kaschak, 1978; Miller, 1993; Ogles et al., 1999; Patterson, 1984), it behooves clinicians to use empirically supported models/techniques for several reasons. First, the use of empirically supported models and techniques in the context of a collaborative treatment relationship ensures clients will receive the maximum benefit from treatment in general, and from the clinicians’ formal intervention efforts in particular (Asay & Lambert, 1999; Hollon, 1996).

Second, demands for accountability in all of the major allied healthcare professions from third-party payors, the government, and consumers (Barlow, 1996; Brown et al., 1999; Hollon, 1996; Howard et al., 1996; Hubble et al., 1999a, 1999b; Miller et al., 1995; Ogles et al., 1999; Strupp & Hadley, 1977), as well as the requirements of professional ethics, obligate clinicians to become proficient in, and
apply whenever possible, empirically supported interventions (Barlow; Brown et al.; Hollon; Hubble et al., 1999a, 1999b; Miller et al.).

Third, with the constant creation of numerous new psychotherapy interventions/treatment models that are heavily promoted by their creators long before empirical testing has demonstrated their safety and effectiveness (Barlow, 1996; Brown et al., 1999; Lambert, 1992; Miller et al., 1995), clinicians must know and apply the interventions known to make an impact on treatment outcome (Brown et al.). In using interventions that have not been investigated empirically, clinicians run the risk of not adding anything of importance to the value of treatment beyond the impact of the other “Big Four” common factors.

Last, the potentially interactive role of model/technique factors with the other, more potent, “Big Four” common factors is still unknown (Asay & Lambert, 1999; Beutler, 1991; Lambert et al., 1986; Ogles et al., 1999). Thus, for example, by offering the client concrete interventions, the therapist’s application of technique/model factors may play a vital role in “boosting” (Asay & Lambert, p. 41) the impact of the client/extratherapeutic factor of motivation, may heighten the factor of client expectancies for positive treatment outcome, and may foster the creation of a very solid therapeutic relationship (Asay & Lambert; Hubble et al., 1999a; Lambert, 1992). In the absence of the application of techniques offered within the frame of an established treatment model, the impact of other significant common factors may be weakened (Asay & Lambert; Hubble et al.; Ogles et al.).
Thus, although other “Big Four” common factors may make a more substantial contribution to treatment outcome, the impact of treatment technique/model factors is important to consider in an investigation of treatment nonresponse and negative response. Not only do treatment techniques and models play a direct role in treatment outcome (Asay & Lambert, 1999; Lambert, 1992), but they may also play an interactive role with the other “Big Four” factors to maximize their potency (Asay & Lambert; Beutler, 1991; Lambert et al., 1986). In instances of treatment nonresponse and negative response, there is not only a possibility that the therapist is not implementing empirically-supported techniques in the frame of an appropriate model, but there is also the possibility that such techniques are not being applied properly and methodically by the clinician – that is, the clinician may be applying them indiscriminately in the treatment (Hollon, 1996). This may prevent the client from benefitting from the technique/model itself and may also cause any potential “booster” effects (Asay & Lambert, 1999) to be lost, thereby precipitating the nonresponse or negative response situation.

Overall, there is substantial evidence that universal elements of psychotherapy processes captured within the “Big Four” common factors model can be used to identify and explain successful outcomes in psychotherapy. Hence, from the large body of research investigating psychotherapy outcomes, two overarching conclusions can be derived. First, most individuals derive substantial benefits from psychotherapy treatment (Andrews & Harvey, 1981; Howard et al., 1986; Landman & Dawes, 1982; Prioleau et al., 1983; Shadish et al., 1997; Shapiro & Shapiro, 1982a; Smith & Glass,
1977; Smith et al., 1980). Second, there are quantifiable aspects of the treatment process shared by all of the major psychotherapy treatment models that predictably contribute to successful outcome in treatment.
THE TREATMENT NONRESPONSE AND NEGATIVE RESPONSE PHENOMENON

participant gains to a clinically meaningful extent. The results are also compatible with
the suggestion that some clients may deteriorate during therapy” (pp. 102-103).

Before reviewing the relatively small body of research investigating treatment
nonresponse and negative response, three vital points must be emphasized. First, it is
important to point out the strikingly unique nature of the patient population that is the
subject of nonresponse and negative response investigations in general and this
investigation in particular. Research indicates that between 42.9% and 50.82% of
patients drop out in the midst of psychotherapy treatment (Wierzbicki & Pekarik,
1993). Those statistically at greater risk for dropout include individuals of “low”
socioeconomic status, with “low” levels of education, and minorities (Garfield, 1986,
1994; Wierzbicki & Pekarik). As Wierzbicki and Pekarik point out, “[r]elatively few
studies have investigated treatment outcome for dropouts” (p. 190) and the role that
treatment nonresponse and/or negative response may play in the dropout phenomenon.

While a review of the body of literature addressing psychotherapy dropout is beyond
the scope of this manuscript (the interested reader is referred to the works of
Wierzbicki and Pekarik, 1993 and Garfield, 1986, 1994 for excellent synopses of
psychotherapy dropout research), it is important to point out that the treatment
nonresponder and negative responder population of interest in the present manuscript is
composed of those who remain in treatment despite the failure to respond to treatment
(Mohr et al., 1990). Given that approximately 50% of patients drop out of treatment
altogether, those who remain despite experiencing either nonresponse or negative
response plainly constitute a unique population worthy of further investigation.
Next, it is important to note that one of the most tragic instances of treatment nonresponse or negative response, suicide, will not be addressed in this manuscript (Mohr, 1995). As discussed by Mohr, there is a vast body of literature addressing suicide and suicidality, a review of which is beyond the scope of this manuscript (the interested reader is directed to Rudd, Joiner, & Rajab, 2001). However, the decision to exclude suicide from the definition of treatment nonresponse and negative response herein is not intended to convey the message that the suicide of a psychotherapy patient does not constitute a treatment failure (Mohr). On the contrary, the suicide of a patient in treatment constitutes treatment failure in its most extreme and devastating form (Mohr).

Last, it is important to clarify that this literature does not refer to clients who do not benefit from treatment or deteriorate in treatment due to the legal, ethical, or professional misconduct of the psychotherapist providing treatment (Mohr, 1995). There is a vast body of literature, also beyond the scope of this manuscript (the interested reader is directed to Apfel and Simon, 1985; Gabbard, 1989; Kitchener, 1988; and Peterson, 1992), addressing the illegal, unethical, or unprofessional acts of psychotherapists that clearly and directly cause harm to clients (Mohr; Mohr et al., 1990). For example, “boundary” violations (Bograd, 1992), including, but not limited to sexual contact between psychotherapists and clients (Apfel & Simon; Markowitz, 1992; Mohr; Plasil, 1985), have received a great deal of attention in the literature. Legal and professional sanctions exist for psychotherapists engaging in such behaviors. While such circumstances are undoubtedly harmful to clients, this is not the specific
focus of the small body of research regarding treatment nonresponse and negative response. Rather, those factors preventing individuals from profiting from appropriate, ethical psychotherapy treatment, which have not yet been thoroughly investigated, are the focus of the small body of treatment nonresponse and negative response literature in general, and of this investigation in particular (Mohr). In order to truly understand psychotherapy process and outcome, and to ensure that psychotherapists "do no harm" to patients who remain in a "standard" course of treatment despite the experience of nonresponse or negative response, the phenomenon of treatment nonresponse and negative response must be further investigated (Barbrack, 1985; Mohr).
Evidence of the Treatment Nonresponse and Negative Response Phenomenon

Although empirical investigations have demonstrated the effectiveness of psychotherapy, it is clear that there is still a noteworthy amount of variation in the treatment outcome individuals experience (Bergin, 1966, 1967, 1970, 1971, 1980; Brehm & Smith, 1986; Brown et al., 1999; Davies-Osterkamp et al., 1996; Lambert et al., 1986; Miller, 1993; Mintz, Luborsky, & Cristoph, 1979; Tarrier et al., 2000; Truax et al., 1966). In other words, "it is... important to point out that average positive effects [of psychotherapy treatment] mask considerable variability in outcomes. [...] It is apparent that not all [who seek treatment] are helped by therapy..." (Lambert et al., p. 119). Thus, while many individuals benefit substantially from psychotherapy, an important minority of clients do not respond to treatment; these patients either merely maintain their pretreatment psychological status or actually experience a worsening in their pretreatment psychological status while in psychotherapy (Bergin, 1966, 1967, 1970, 1971, 1980; Bergin & Lambert, 1978; Brehm & Smith; Davies-Osterkamp et al.; Fennell & Teasdale, 1987; Foa et al., 1983; Franks & Mays, 1980; Hill, 1998; Lambert, 1992; Lambert & Bergin, 1994; Lambert et al., 1977; Lambert et al., 1986; Leon et al., 1999; Lutz et al., 1999; Mays & Franks, 1980, 1985b; Miller; Mintz et al.; Mohr, 1995; Mohr et al., 1990; Orlinsky et al., 1994; Orlinsky & Howard, 1986; Strupp 1980a, 1980b, 1980c, 1980d; Strupp & Hadley, 1977; Strupp et al., 1977; Tarrier et al.; Truax et al.; Whiston & Sexton, 1993). As previously noted, empirical research and meta-analytic studies suggest that between 6% and 12% of patients experience negative
treatment response (Davies-Osterkamp et al.; Lambert et al., 1986; Mohr et al.; Najavits & Strupp, 1994; Orlinsky & Howard, 1980; Truax et al.; Whiston & Sexton), while up to 30% of patients experience treatment nonresponse (Davies-Osterkamp et al.; Lambert et al., 1986; Mohr et al.; Orlinsky & Howard, 1980; Truax et al.). Despite the relatively common occurrence of treatment nonresponse and negative response, very little research has been directed at understanding the factors involved in treatment response and negative response (Mohr; Mohr et al.). Given that “[a]n examination of failed psychotherapy cases can lead to improvements in technique” and treatments offered, “[c]linical psychologists would be foolish to ignore this source of information” (Mohr, p. 1). Moreover, as Mohr pointed out, “[v]irtually every other field learns from its mistakes” (p. 1); it is surprising that psychologists have ignored this veritable goldmine of information for such a long time (Bergin, 1966).

The Nonresponse and Negative Response Phenomenon –

Theory and Research

Freud and Breuer’s Theory

Freud and Breuer first noted the potential for the nonresponse and negative response phenomenon to occur in psychotherapy (Mays & Franks, 1985a; Strupp et al., 1977). Specifically, Freud and Breuer posited that “negative therapeutic reactions” (Strupp et al., p. 6) could happen during the treatment process either as a result of the
patient’s resistance to treatment interventions or because of the psychoanalyst’s lack of skill in dealing with the patient’s transference and/or resistance (Hubble et al., 1999a; Mays & Franks; Strupp et al.).

The net effect in both instances [according to Freud and Breuer] is the same. The patient remains unchanged or gets worse, and the reasons lie in either the patient’s neurotic structure, which proves impervious to reasonable therapeutic efforts, or in deficiencies within the therapist. The latter may be divided into (1) deficiencies in technical skill, traceable to the therapist’s inability to correctly identify and deal with the patient’s defensive operations, and (2) emotional reactions to the patient as a person or to his defensive strategies (Strupp et al., p.7).

In addition, Freud noted, the phenomenon of treatment nonresponse and negative response could happen because significant others in the patient’s family and/or social support system were invested in the maintenance of, or decrement in, the patient’s pretreatment psychological status (Strupp et al., 1977). Thus, Freud suggested, it was possible that nonresponse or negative response in a given client could occur as a result of “members of the patient’s family who, frequently for neurotic reasons of their own actively [but unconsciously] interfere with the therapeutic effort,” (Strupp et al., p. 7). Beyond noting the potential for the nonresponse or negative response phenomenon to occur and cautioning psychoanalysts to attend carefully to the transference and countertransference reactions and interpretations involved in the
psychotherapy process, however, no further theoretical or empirical work was conducted by Freud and Breuer in this area (Mays & Franks, 1985a; Strupp et al.).

**Bergin’s Causal Conclusions**

The nonresponse and negative response phenomenon was not seriously addressed again until the 1960s, as an outgrowth of the debate over the efficacy of psychotherapy in general (Mays & Franks, 1985a). During this time, Bergin published several articles (1963, 1966, 1967, 1970, 1971) in which he indicated patients may either improve or worsen in symptom- and functional-status during psychotherapy, reviewed a select group of studies providing what he believed to be evidence of this “deterioration effect” (Bergin, 1966, p. 237), and warned of the potential for psychotherapy to cause harm to some individuals who sought treatment (Bergin 1963, 1966, 1967, 1970, 1971; Lambert & Bergin, 1994; Lambert et al., 1986; Mays & Franks; Smith et al., 1980; Strupp et al., 1977). Bergin defined the “deterioration effect” as the situation in which “[p]sychotherapy... cause[s] people to become... worse adjusted than comparable people who do not receive such treatment” (1966, p. 235), based on posttreatment outcome measures compared with pretreatment outcome measures. In general, Bergin and his colleagues (Lambert et al.) argued that while the overall findings of meta-analyses (Shapiro & Shapiro, 1982a; Smith & Glass, 1977; Smith et al.) had demonstrated the general effectiveness of psychotherapy, evidence from both meta-analyses (Lambert et al.) and individual psychotherapy outcome
studies (Bergin 1966, 1967, 1980) indicated psychotherapy sometimes caused harm to some patients in treatment. Bergin’s argument hinged on two specific pieces of evidence he presented (Bergin, 1966; Lambert et al.).

First, according to Bergin (1966, 1967, 1971, 1980), the results of a number of individual psychotherapy outcome studies showed that a substantial amount of variability occurred in psychotherapy outcomes. Within individual studies and across a number of separate studies, treatment outcome (gauged by a variety of psychometric instruments selected by researchers to measure changes in either specific target symptoms or global level of functioning) was highly variable. The finding that treatment outcome results were so widely varied led Bergin (1966, 1967, 1971, 1980) to conclude that both positive and negative change must be occurring within treatment. Lambert et al. (1986) summarized Bergin’s (1966, 1967, 1971, 1980) “variance change” (p. 182) argument as follows:

Bergin... proposed the term “deterioration effect” to describe the general finding that a certain portion of psychotherapy patients were [sic] worse after treatment. Such an effect was first suggested by studies in which treated groups showed an increase in variance compared with control groups on outcome measures. This implied that therapy groups included cases that were diverging from the mean change scores in both directions, positive and deterioration. Therapy effects, including negative ones, can, however, be distributed so as to show no change or even a restriction in variance at treatment termination (p. 182).
Along the same lines, Bergin and his colleagues (Lambert et al., 1986) argued that the major meta-analyses conducted to determine the efficacy of psychotherapy had demonstrated not only a great deal of variability, but also indicated small negative effect sizes in their analyses (Lambert et al.; Shapiro & Shapiro, 1982a; Smith & Glass, 1977; Smith et al., 1980). Specifically, Lambert et al. indicated that the

...average psychotherapy and behavior change outcome indices mask a great deal of variability... this variability represents a diversity in therapeutic potency ranging from bad to excellent. Translating average outcomes into effect sizes does not change this fact; indeed, the meta-analyses based on effect sizes have abundantly documented this point. While the average effect sizes... are impressive by comparison with no treatment... it is a point of some concern that an average effect size of 0.85 implies that somewhere near half of the treated samples attained effects smaller than 0.85, and many of these had to be near zero due to the large standard deviations of the average effect sizes reported. Indeed, Shapiro and Shapiro (1982a) reported that about 30% of their 1828 E.S.’s were near zero and 11 percent [sic] were negative... (p. 178; italics of original source).

Bergin (1980) interpreted these findings as “proof” that psychotherapy caused deterioration in patients (Franks & Mays, 1980; Mays & Franks, 1980; Lambert et al.). Specifically, Bergin (1980) indicated the high degree of variability and negative effect sizes proved that “[s]ome psychotherapy induces harmful effects that would not occur
without treatment or with good treatment. Who is producing these effects, how, and to what extent is yet to be fully documented” (p. 99).

Many credit Bergin for being the first contemporary researcher to draw attention to the treatment nonresponse and negative response phenomenon (Lambert et al., 1986; May, 1971; Mays & Franks, 1980; Sachs, 1983). Indeed, Mays and Franks stated,

More than any other writer, Bergin is responsible for bringing to professional attention the fact that some patients become worse rather than better over the course of psychotherapy. Prior to Bergin’s efforts, this possibility was rarely considered in outcome research (pp. 78-79).

This represented a significant contribution to the investigation of psychotherapy effectiveness (Lambert et al.; Mays & Franks; Sachs), as research into the phenomenon of nonresponse and negative response is both worthwhile and also fundamental to understanding psychotherapy treatment outcome overall (Lambert 1992; Lambert et al.; Mays & Franks; Mohr, 1995; Mohr et al., 1990; Sachs). However, many researchers also challenged Bergin’s adamant conclusion that “deterioration effects” in psychotherapy were caused by the psychotherapy treatment itself (Braucht, 1970; Franks & Mays, 1980; May; Mays & Franks, 1980, 1985a; Strupp et al., 1977). These scientists cited two major flaws in Bergin’s work.

First and foremost, correlation does not imply causation (Campbell & Stanley, 1963; Franks & Mays, 1980; Mays & Franks, 1980, 1985a; Ray, 1993; Tabachnick & Fidell, 1989). Causation can only be demonstrated by investigations using the design
of a "true experiment" (Campbell & Stanley; Ray; Tabachnick & Fidell). As noted by Lambert et al. (1986), Mays and Franks (1980), Strupp et al. (1977), and Bergin himself (1980), for critical ethical and legal reasons it is not possible to conduct research that is intended to cause harm to patients; this would be required in a "true experiment" of treatment nonresponse and negative response. Thus, while it may be true that some patients do not benefit from psychotherapy, or experience a decline in their pretreatment psychological status during the course of therapy, this does not necessarily indicate that the psychotherapy process or the psychotherapist caused patients to have this experience (Campbell & Stanley; Franks & Mays; May, 1971; Mays & Franks, 1980; 1985a; Ray; Strupp et al.; Sachs; Tabachnick & Fidell).

Second, there are many methodological flaws in Bergin's (1963, 1966, 1967, 1970) work – both within the studies he presented as providing evidence of the "deterioration effect" and in his analyses of those studies (Braucht, 1970; Franks & Mays, 1980; May, 1971; Mays & Franks, 1980; Smith et al., 1980). This greatly limited the conclusions that could be drawn (Braucht; Franks & Mays; May; Mays & Franks; Smith et al.). While an in-depth critique of Bergin's work is beyond the scope of this manuscript (the interested reader is directed to Braucht; Gottman, 1973; May; Mays & Franks; and Strupp et al., 1977), a brief overview of the most egregious methodological flaws identified may be helpful in illustrating the reasons for reviewers' unanimous rejection of Bergin's assertion that psychotherapy causes patient deterioration (Braucht; Franks & Mays; Gottman; May; Mays & Franks, 1980, 1985a; Strupp et al.).
To begin with, the studies Bergin cited as demonstrating the “deterioration effect” had numerous methodological flaws, causing their validity to be called into question (Braucht, 1970; Franks & Mays, 1980; May, 1971; Mays & Franks, 1980, 1985a; Strupp et al., 1977). Many of the studies were uncontrolled, with either a lack of randomization procedures incorporated in the design or the use of non-equivalent treatment and control groups in comparison studies (Braucht; May; Mays & Franks, 1980, 1985a; Strupp et al.). Various errors in statistical data analyses also undermined the validity of several studies Bergin had used to support his “deterioration effect” hypothesis (Braucht; May; Mays & Franks, 1980, 1985a; Strupp et al.). These serious methodological errors left Bergin without empirical support for his conclusion that psychotherapy causes deterioration in some patients.

In addition, Bergin himself committed two major logical errors in using the studies he had selected to support his argument. A number of the studies he selected to support his causal conclusions do not constitute true psychotherapy treatments, but rather involve “encounter groups” (Franks & Mays, 1980, p. 102; Strupp et al., 1977, p. 29), “social services, ...sensitivity training, ...hospital milieu programs[,] or treatments which are primarily somatic” (Strupp et al., p. 29). These sorts of interventions do not fit most definitions of psychotherapy; thus, the results of these studies would not generalize to psychotherapy as typically practiced (Franks & Mays; Strupp et al.). Bergin’s conclusion that psychotherapy caused patients to deteriorate would not be supported by studies in which true psychotherapy treatments were not used, regardless of their outcome (Franks & Mays; Strupp et al.). Bergin’s “variance change”
hypothesis was also not sound. Several reviewers (Braucht, 1970; Gottman, 1973; Mays & Franks, 1980) called into “question the statistical accuracy of interpreting greater change score variance as evidence of deterioration” (Mays & Franks, p. 80). Thus, other researchers considered the very foundation of Bergin’s argument to be shaky at best (Braucht; Gottman; Mays & Franks).

Perhaps the most important methodological error involved in his work, Bergin also misinterpreted the studies he selected to support his argument – three of which were methodologically sound (Franks & Mays, 1980; Strupp et al., 1977). As Franks and Mays indicate:

...we regard [Paul 1967a, 1967b; Sloane et al., 1975]... as methodologically adequate studies that contradict Bergin’s position. [...] [W]e... apply recognized standards of methodology, with the conclusion that the three studies... all methodologically adequate, contradict Bergin. [...] ...there is no evidence of greater deterioration in therapy patients than in comparable untreated persons (p. 101).

Strupp et al. reached similar conclusions, noting:

...[Sloane et al.] is free from shortcomings in selecting patients, therapists, or treatment modalities, and from flaws in methodology and experimental design which limit interpretation of the findings. Results from this... study indicate relatively low rates (3-6%) of negative change among outpatients suffering from neurotic difficulties and personality disorders who were treated by
experienced psychotherapists and behavior therapists. These rates are similar to those of untreated wait-list patients (3-6%) (p. 46).

Strupp et al. indicate that Bergin's review is based upon "research [that] is inadequate to convincingly demonstrate the frequency with which patients are harmed by... psychotherapy experiences or the reasons underlying deterioration" (p. 49), given that treatment and no-treatment groups within the methodologically adequate studies experienced similar rates of deterioration. Nonetheless, Strupp et al. recognized the importance of addressing treatment nonresponse and negative response, stating "[f]urther investigation of the problem of negative effects in psychotherapy is crucial" (p. 49).

Thus, while critics conceded the methodologically sound studies Bergin included in his reviews demonstrated that a small, but important, percentage of subjects do not improve or experience a decline in psychological status during treatment, they also demonstrated that these studies do not indicate rates of nonresponse and/or negative response above those of control groups. At minimum, such evidence would be necessary to support Bergin's claim that psychotherapy treatment "caused" the nonresponse and/or negative response to occur (Franks & Mays, 1980; Mays & Franks, 1980, 1985a; Strupp et al., 1977). Bergin's causal conclusions could therefore not be supported; unfortunately, this seems to have led many to dismiss the entire issue of patient deterioration in psychotherapy completely (Barbrack, 1985). An exception to this trend, Strupp et al. were both critical of Bergin's work and in agreement with Bergin's basic theoretical premises, stating, "the potential for negative effects in
psychotherapy cannot be denied. Both clinicians and researchers accept the idea that psychotherapy may exacerbate, as well as ameliorate, psychic distress...” (Strupp et al., p. 46). This pragmatic stance allowed for correction of Bergin’s flawed causal conclusions, while emphasizing the importance of further investigation into the nonresponse and negative response phenomenon. The valuable contributions Strupp and his colleagues made in the largely uninvestigated area of treatment nonresponse and negative response will be reviewed in the upcoming section of this manuscript.

In summary, while many of the studies Bergin chose to analyze and incorporate as evidence of the causal role of psychotherapy in patient nonresponse and negative response are simply too methodologically flawed to draw conclusions, those that are methodologically sound do not lend evidence to his causal conclusions. In addition, as noted by Franks and Mays (1980), “if therapy causes deterioration, one would expect to find one adequate psychotherapy outcome study in which a higher rate of decline occurs among treated patients. This study has yet to be found” (p. 103, italics of original work). Clearly, the consensus indicates that while Bergin’s work raised important issues regarding treatment nonresponse, his causal argument regarding the “deterioration effect” was fundamentally flawed, employed faulty rationale, and was supported by very weak research evidence (Franks & Mays, 1980; May, 1971; Mays & Franks, 1980).
Strupp et al.'s Investigations of Nonresponse, Negative Response, and Negative Process

Despite their challenges to Bergin's conclusion that psychotherapy caused harm to some patients, many of Bergin's critics indicated emphatic agreement that an important minority of patients apparently do not derive any significant benefit from psychotherapy treatment and either maintain their pretreatment psychological status or experience a decline in their functional psychological status evidenced prior to treatment (Mays & Franks, 1985a, 1985b; Strupp et al., 1977). These researchers indicated strong agreement with Bergin that the apparent treatment nonresponse and negative response of some patients was a serious matter worthy of further empirical investigation (Mays & Franks, 1985a, 1985b; Strupp et al.).

For example, Strupp et al. (1977) surveyed "approximately 150" (p. 51) psychotherapy experts regarding "negative effects in psychotherapy" (p. 51). The questionnaire designed by Strupp et al. solicited experts' opinions about the existence of such a phenomenon, its definition, its nature, and its potential causes. In addition, Strupp et al. encouraged respondents to share anecdotal evidence of negative effects in psychotherapy. In a qualitative report of the overall results distilled from the 70 (p. 51)
surveys returned, Strupp et al. noted the following:

Among the experts in psychotherapy who responded... there was virtually [sic] unanimity that there is a real problem of negative effects in psychotherapy. The frequency of occurrence was judged as moderate by some, whereas others... suggested that “negative effects in long-term outpatient psychotherapy are extremely common.” On the other hand, there were some noteworthy dissents. One respondent felt there is little evidence for negative effects of therapy, noting that although most clinicians are able to cite experiences they have had with patients who appeared to deteriorate during treatment, he believes there is no persuasive evidence that the negative effects which appeared were due to the psychotherapy itself (p. 52).

In addition, Strupp et al. stated:

The issue of negative effects as a result of psychotherapy is intimately related to the question of the potency of psychotherapy per se, as many of our respondents noted. [...] There is a consensus that if it is possible for psychotherapy to produce beneficial effects, it must be capable, at least theoretically, of producing negative effects as well (p. 52).

As previously mentioned, it is interesting to note that although Strupp et al. were among those who strongly criticized Bergin for having drawn causal conclusions, in the summary of their survey findings Strupp et al. also intimate that deterioration is caused by psychotherapy or some aspect of its process. However, in the overall qualitative analysis of the survey they conducted, Strupp et al. also identify a number
of patient, therapist, treatment and therapy process factors that questionnaire respondents named as possible factors in the “negative effects” phenomenon.

Strupp, both independently (Strupp 1980a, 1980b, 1980c, 1980d) and collaboratively (Henry, Schacht, Strupp, Butler, & Binder, 1993; Henry, Strupp, Butler, Schacht, & Binder, 1993) continued to address the issue of treatment nonresponse and negative response by investigating the therapeutic processes likely to undermine positive outcomes. For example, in a series of detailed single-case studies (1980a, 1980b, 1980c, 1980d), Strupp examined the treatment process and outcome of patients in eight therapeutic dyads. Each case study contrasted one “successful” psychotherapy client with one “unsuccessful” patient, both of whom had been treated by the same psychotherapist (Strupp, 1980a, 1980b, 1980c, 1980d). Thus, the work of four therapists treating eight individual clients was scrutinized (Strupp, 1980a, 1980b, 1980c, 1980d). Detailed analyses of the therapeutic interactions indicated that those who were less successful in psychotherapy were more likely to express hostility overtly and covertly toward the therapist during the treatment process (Strupp, 1980a, 1980b, 1980c, 1980d). Patients deemed less successful were also less able to engage in a productive, intimate interpersonal relationship with the therapist, choosing instead to maintain the therapeutic interactions at a superficial level (Strupp, 1980a, 1980b, 1980c, 1980d).

A more surprising finding was that therapists reacted differently to the patients who were ultimately less successful than to those who were judged to be successful in the final analysis (Strupp, 1980a, 1980b, 1980c, 1980d). In contrast to their work with
successful clients, during their work with less successful clients psychotherapists were more likely to engage in “negative process” interactions (Strupp, 1980a, 1980b, 1980c, 1980d). Strupp defined such interactions as those in which psychotherapists responded to the patient’s hostility and aggression with “counterhostility” (1980d, p. 954) and aggressive reactions, as opposed to neutral, interpretation-based responses, thereby triggering a downward spiral of therapeutic exchange (Strupp, 1980a, 1980b, 1980c, 1980d).

Based on the fact that all of the therapists had worked successfully with “positive responders,” Strupp (1980d) concluded that the clients’ interpersonal dynamics had elicited therapists’ reactions leading to “negative process” interactions. Strupp indicated therapists’ reactions to patients’ interpersonal dynamics played a significant role as well:

...major deterrents to the formation of a good working alliance are not only the patient’s characterological distortions and maladaptive defenses but – at least equally important – the therapist’s personal reactions. Traditionally these reactions have been considered under the heading of countertransference. It is becoming increasingly clear, however, that this conception is too narrow. The plain fact is that any therapist – indeed any human being – cannot remain immune from negative (angry) reactions to the suppressed and repressed rage regularly encountered in patients with moderate to severe disturbances. As soon as one enters the inner world of such a person through a therapeutic relationship, one is faced with the inescapable necessity of dealing with one’s
own response to the patient’s tendency to make the therapist a partner in his difficulties via the transference. ...therapists – even highly experienced ones... – tended to respond to such patients with counterhostility that not uncommonly took the form of coldness, distancing, and other forms of rejection. Needless to say, to the patient such responses become self-fulfilling prophecies leading to a dissolution of the therapeutic relationship, early termination, and poor outcome. In our study we failed to encounter a single instance in which a difficult patient’s hostility and negativism were successfully confronted or resolved.

...a... likely possibility is that therapists’ negative responses to difficult patients are far more common and far more intractable than has been generally recognized. [...] ...in the final analysis we are dealing with a ubiquitous human tendency [to react to negativity with negativity] that represents perhaps the single most important obstacle to successful psychotherapy, thus meriting much greater attention than it has been accorded (Strupp 1980d, p. 954, italics of original work).

In later research conducted by Strupp and his colleagues (Henry, Schacht et al., 1993; Henry, Strupp et al., 1993), evidence indicated that, in certain situations, some therapists were predisposed to engage in “negative and complex interpersonal communications” (Henry, Schacht et al., p. 446). According to their findings, it seemed that some therapists resisted the pull into destructive negative process better than other therapists did (Henry, Schacht et al.; Henry, Strupp et al.). Specifically, Henry, Schacht et al. and Henry, Strupp et al. found that certain therapists, forced to
follow a manualized treatment program during psychotherapy research, were much more likely to engage in "countertherapeutic interpersonal process[es]" (Henry, Schacht et al., p. 446) with clients than were other therapists. Findings indicated that therapists with "hostile introjects" were far more likely to engage in such negative, relatively hostile interactions with their clients (Henry, Schacht et al., p. 446; Henry, Strupp et al.); the clients of these therapists were also more likely to experience nonresponse and negative response outcomes at the end of the treatment study (Henry, Schacht et al.; Henry, Strupp et al.). In light of this evidence, it is likely that both psychotherapists and psychotherapy clients play a role in "negative process" interactions and the treatment nonresponse or negative treatment response outcomes that result from it. Furthermore, certain patients and psychotherapists may be more likely to participate in destructive "negative process" interactions than others (Henry, Schacht et al.; Henry, Strupp et al.). Research clarifying the characteristics of patients and therapists so inclined would be of great value in training psychotherapists (Strupp & Anderson, 1997) and in creating interventions designed to prevent treatment nonresponse and negative response (Mohr, 1995).

Strupp and his colleagues (Henry, Schacht et al., 1993; Henry, Strupp et al., 1993; Strupp 1980a, 1980b, 1980c, 1980d) contributed significantly to the understanding of the complex interpersonal dynamics in psychotherapy treatment that ultimately lead to treatment nonresponse and negative response. Their findings indicate that the interaction of certain identifiable client and therapist characteristics increases the likelihood that "negative process" will occur during psychotherapy
treatment; this may place clients at greater risk for treatment nonresponse and negative response. Still, it is important to note that some clients experience positive treatment outcomes in spite of working with psychotherapists exhibiting a propensity to engage in “negative process” interactions (Henry, Schacht et al.; Henry, Strupp et al.). Further research is needed to elucidate the factors that contribute to nonresponse and negative response, and the role of “negative process” in psychotherapy outcomes (Henry, Schacht et al.; Henry, Strupp et al.).

Nonresponse and Negative Response in Specific Populations and Treatment Modalities

As previously noted, despite agreement among critics that Bergin, and later Strupp et al. (1977), had drawn attention to an important psychotherapy phenomenon worthy of further investigation (Lambert 1992; Lambert et al., 1986; Mays & Franks, 1985a; Mohr, 1995; Mohr et al., 1990; Sachs, 1983), empirical, anecdotal, and theoretical work addressing treatment nonresponse and negative response has been sparse (Mohr). The existing literature addresses treatment nonresponse and negative response either as it occurs within specific populations or psychotherapy within specific treatment modalities (Mays & Franks, 1985b).
Psychodynamic treatment.

Given the general dearth of information regarding treatment nonresponse and negative response, it is not surprising that little has been published within the psychodynamic literature regarding this topic (Colson, Lewis et al., 1985). Estimates of the percentage of patients who deteriorate in psychodynamic treatment range from 1% to 44% (Colson, Lewis et al.). Interestingly, the small body of empirical and anecdotal literature addressing nonresponse and negative response in psychodynamic therapy largely supports the factors identified by Freud and Breuer (please refer to pages 103-105) as being salient in treatment failure, including the complexity of the patient’s defense mechanisms (Colson, Lewis et al.; Kernberg, 1973; Mays & Franks, 1985a; Strupp et al., 1977), the severity of the patient’s psychopathology (Colson, Lewis et al.; Kernberg; Mays & Franks; Strupp et al.), an undermining of the treatment process by the patient’s family (Colson, Lewis et al.; Mays & Franks; Strupp et al.), the existence of intense, unprocessed transference and countertransference reactions (Colson, Lewis et al.; Mays & Franks; Strupp et al.), and a lack of skill on the part of the therapist (Colson, Lewis et al.; Mays & Franks; Strupp et al.; Sachs, 1983). Thus, a number of patient, therapist, and treatment characteristics have been implicated in negative treatment response occurring in psychodynamic treatment (Colson, Lewis et al.; Kernberg; Mohr, 1995; Sachs).
Only one empirical research study specifically exploring “negative outcome,” defined as a patient’s deterioration either during psychodynamic treatment or following such treatment (Colson, Lewis et al., 1985), could be located. However, in a related study focusing on positive treatment response in psychodynamic psychotherapy, Kernberg (1973) corroborated these findings. This extensive, naturalistic study of “negative outcome” involved 42 outpatients treated at the Menninger Clinic by 26 psychodynamically-oriented psychotherapists. Patients’ treatment histories, clinical interviews, and results on a psychological assessment battery, as well as therapists’ treatment notes, were used to judge whether clients responded to, and improved in treatment, or whether they deteriorated in treatment (Colson, Lewis et al.). Of the 42-patient sample, 11 were judged to have experienced “negative outcome” in treatment (Colson, Lewis et al.). In analyzing the data gathered, the researchers noted a number of similarities among those who experienced “negative outcome;” these traits were not found within the treatment success group (Colson, Lewis et al.).

Patients judged to have experienced “negative outcome” had a number of psychological, interpersonal, and family-of-origin features in common (Colson, Lewis et al., 1985). Negative responders were diagnosed as having more severe levels of psychopathology than treatment responders (Colson, Lewis et al.). All of the patients who experienced negative outcomes were identified as having a “borderline personality organization” (Colson, Lewis et al., p. 61). In keeping with this, negative responders were found to rely on “primitive defense mechanisms” (Colson, Lewis et al., p. 61), have “low ego strength” (Colson, Lewis et al., p. 61), exhibit low self-esteem (Colson,
Lewis et al.; Kernberg, 1973), and demonstrate generally poor interpersonal relationships (Colson, Lewis et al.; Kernberg). Several additional features distinguished negative responders from other patients with a borderline personality organization who did respond to treatment (Colson, Lewis et al.; Kernberg). In addition to the previously noted traits, negative responders seemed to have intense difficulties forming interpersonal relationships, exhibited particularly poor interpersonal skills, demonstrated a marked aversion to interpersonal intimacy, and took a hostile, demanding, impatient/instant-gratification-oriented stance with the psychotherapist providing treatment (Colson, Lewis et al.). An inability to establish a therapeutic alliance with the psychotherapist was the rule among those experiencing negative outcomes (Colson, Lewis et al.).

The researchers also noted that negative responders exhibited a particular “masochistic” personality style, marked by a proclivity for engaging in self-defeating, self-destructive behaviors and for directly sabotaging the treatment (i.e., by not attending sessions) (Colson, Lewis et al., 1985, p. 60). Unfortunately, the families of negative responders had in common the tendency to be extremely permissive of, and even encouraging of, the acting-out behaviors patients engaged in (Colson, Lewis et al.). Negative responders seemed, moreover, to have... a deep-seated sense of unconscious guilt (taking the form of self-defeating behavior), the conviction... that they do not have a right to a better life[,] and [the belief] that success and maturation means that others will be depleted or destroyed. Thus every potential for something better in their lives
(psychological treatment constituting one such unique potential) seemed to exacerbate their worst pathology (Colson, Lewis et al., p. 74).

In general, the researchers stated, "the patient’s decline in functioning or failure to improve in treatment would be viewed [by the patient]... as an altruistic sacrifice of oneself to ‘goodness’ in order to ensure that loved ones [would] not be deprived" (Colson et al., p. 60). This fundamental psychological style seemed to undermine the treatment process even before it began (Colson, Lewis et al.).

The therapists involved in treating patients exhibiting negative responses to psychodynamic treatment were also found to have a number of traits in common (Colson, Lewis et al., 1985). These therapists were found to have a number of skill deficits illustrated by their inadequate conceptualization of negative responders’ cases, failure to recognize the extent of negative responders’ pathology until well into the treatment process, and associated failure to apply treatment appropriate to negative responders’ needs (Colson, Lewis et al.). In addition, therapists of treatment negative responders were found to have less adequate interpersonal skills than those demonstrated by therapists of treatment responders (Colson, Lewis et al.). The therapists of negative responders had greater difficulty in establishing a working alliance, exhibited unchecked and unprocessed countertransference reactions – particularly hostile reactions – toward patients, and appeared to exhibit more distancing and rejecting behaviors toward patients (Colson, Lewis et al.). Lastly, therapists of negative responders demonstrated a marked proclivity for conducting treatment in an unstructured manner, avoiding limit- and boundary-setting with patients, and
disengaging from the treatment process (Colson, Lewis et al.). Unfortunately, it is unclear whether negative responders' therapists reacted in this manner only toward negative responders (indicating an interaction between patients' traits and therapists' deficits) or toward all of their patients (indicating basic global skill deficits in the therapist).

Certain elements of the treatment process were implicated in the nonresponse phenomenon as well (Colson, Lewis et al., 1985). Assessment procedures associated with psychodynamic treatment were found to fall short, in that negative responders as a group were misdiagnosed and the severity of their pathology underestimated (Colson, Lewis et al.). This can at once be considered a shortcoming of both the therapist conducting the treatment and the treatment model itself. The potential for misconceptualization, combined with the lack of conceptualization verification mechanisms within the treatment model, led to the inappropriate treatment of negative responders for what was described by Colson, Lewis et al. as a substantial portion of the treatment duration.

Lastly, it has been argued that psychodynamic treatment of patients with extreme levels of psychopathology leads to decompensation in such patients, given the anxiety provoked within patients by the demands of psychodynamic therapies (G. Hesse, personal communication, November, 2000; Kernberg, 1973; Mohr, 1995). Specifically, the tasks of introspection, abstraction, and cognitive and affective insight (Gelso, Hill, Mohr, Rochlen, & Zack, 1999) are inherently threatening to many individuals; these tasks also require a firm command of reality-based logic that is not
possessed by individuals with grossly disorganized thought processes, such as the severely and persistent mentally ill (G. Hesse, personal communication, November, 2000). The feelings of anxiety and the perception of threat created within a patient inherently unable to achieve such a task will inevitably lead to decompensation (G. Hesse, personal communication, November, 2000; Kernberg, 1973; Mohr, 1995). Thus, it is highly likely that the extent of patients’ psychopathology interacts with the form of treatment provided (Colson, Lewis et al.; Kernberg; Mohr). Therefore, psychodynamic psychotherapy may be contraindicated in the treatment of patients with severe psychopathology, particularly psychopathology of the nature described above (Mohr).

As is the case in the psychotherapy literature in general, the body of literature addressing treatment nonresponse and negative response in cognitive and behavioral therapies is relatively small (Emmelkamp, 1994). Still, more literature directly addressing treatment nonresponse and negative response, including one entire volume devoted to the topic (Foa & Emmelkamp, 1983), has been written in this area than in any other (Barbrack, 1985; Barlow, 1980a, 1980b; Wilson, 1982) (for a dissenting opinion see Mohr, 1995). In spite of this, investigations into nonresponse and negative response in cognitive and behavioral therapy have not increased with the publication of articles addressing the phenomenon (Barbrack). Indeed, Barbrack noted that the few published studies addressing nonresponse and negative response in cognitive and behavioral therapy seem to have passed into oblivion. Perhaps this is best illustrated in the field of behavior therapy by the astounding lack of attention paid to deterioration effects in Foa and Emmelkamp’s (1983) otherwise timely, comprehensive, and intellectually honest book devoted solely to the topic of treatment failures in behavior therapy (p. 78).

Reasons for the lack of focus on nonresponse and negative response will be addressed in a later section of this manuscript. Suffice it to say that while several authors have attempted to address this crucial issue, particularly with regard to cognitive and
behavioral psychotherapy, interest in the nonresponse and negative response phenomenon has remained low (Barbrack).

A general overview of the behavioral research literature indicates that, while treatment nonresponse and negative response have not been addressed per se, researchers have noted the occurrence of undesirable "side effects" (Barbrack, 1985, p. 98) in the course of treatments using behavioral reinforcement strategies to eliminate problem behaviors in children, adolescents and adults (Barbrack; Mohr, 1995). An in-depth review of this body of literature is beyond the scope of this manuscript (the interested reader is directed to Barbrack for a comprehensive analysis of the literature). In the main, the "side effects" of behavioral therapy that have been noted include increases in unacceptable behaviors targeted for reduction through treatment, decreases in acceptable behaviors exhibited by patients prior to treatment, and the emergence of additional undesirable behaviors that had not been demonstrated by patients prior to the application of behavioral treatment interventions (Barbrack; Mohr). As noted by Barbrack, the occurrence of unexpected "side effects" in behavioral therapy is evidence that nonresponse or negative response can, and does at times, occur as a result of behavioral treatment. Further research into the factors involved in such undesired results is needed to clarify the appropriate uses and contraindications of behavioral therapy (Barbrack; Mohr).
Treatment nonresponse and negative response to cognitive and/or behavior therapy has also been reported in three specific patient populations (Mohr, 1995). First, Bruch (1974) presented three examples of negative treatment response in anorexia nervosa patients treated with behavioral therapy in an inpatient setting (this literature is reviewed in greater depth in an upcoming section of this manuscript).

While the sample presented is small, and the prevalence of negative treatment response in anorexia patients receiving behavioral therapy is unknown (Mohr), the fact that treatments for anorexia nervosa have been expanded to include both a cognitive and behavioral component (Kaplan & Garfinkel, 1999) suggests that behavioral therapy alone was inadequate to address the needs of this difficult-to-treat population (Mohr).

Next, Foa et al. (1983) and Foa and Steketee (1977) described the occurrence of treatment nonresponse and negative response in patients treated with cognitive-behavioral therapy for obsessive-compulsive disorder. Despite the application of a well-developed, empirically-supported cognitive-behavioral treatment for obsessive-compulsive disorder called “exposure and response prevention,” approximately 15% to 40% of patients in aggregate experience nonresponse and negative response outcomes (Foa et al.). Research (detailed in a later section of this manuscript) indicates that pretreatment levels of depression and anxiety, as well as the age of onset of obsessive-compulsive symptomatology, play a role in exposure and response prevention treatment outcomes (Foa et al.). Although this research constitutes an excellent start to understanding treatment nonresponse and negative response in obsessive-compulsive disorder, the fact that the relevant variables identified account for only 40% of the
outcome variance indicates further research is necessary to elucidate all of the factors involved.

Last, several studies into treatment nonresponse and negative response in patients diagnosed with unipolar major depressive disorder have been conducted (Fennell & Teasdale, 1982, 1987; Mohr et al., 1990; Tang & DeRubeis, 1999). Each of these studies will be described in greater depth later in this manuscript. It is important to note here that the only well-designed empirical research specifically investigating treatment nonresponse and negative response (Mohr, 1995) that could be located focused upon a sample of outpatients with major depressive disorder treated with cognitive behavior therapy (Mohr; Mohr et al., 1990). This study is unique in that its purpose was limited to the investigation of nonresponse and negative response; therefore, brief mention of its salient points is warranted.

Participants in the study conducted by Mohr et al. (1990) received a 20-session course of either cognitive therapy, gestalt therapy, or “self-directed bibliotherapy” (Mohr, 1995, p. 19). There was a nonsignificant tendency (Mohr et al.) for patients receiving cognitive therapy to experience greater improvement than patients in the other treatment conditions (Mohr). Still, “Mohr et al.... found that 1 out of 20 patients with major depression deteriorated in [the] cognitive therapy [condition]” (p. 19). Thus, while Hollon and Emerson (1985) deny the potential for nonresponse and negative response to occur in depressed patients receiving cognitive psychotherapy for depression (Mohr), Mohr et al. provide clear evidence of such deterioration (Mohr).
Collectively, the evidence indicates that further investigation of nonresponse and negative response in all realms of cognitive and behavioral therapy is justified (Barbrack, 1985; Mohr, 1995; Mohr et al., 1990); a complete understanding of the effects of these psychotherapies depends upon comprehensive research addressing treatment response, nonresponse and negative response. Still, the high quality and sophistication of the research literature in the cognitive behavioral therapies has allowed researchers and clinicians to gain valuable insight into some of the factors involved in treatment nonresponse and negative response. Given the paucity of research in the psychotherapy outcome literature in general, the advances made in this area are truly remarkable.

**Group treatment.**

The popularity of group psychotherapy treatment in the 1970’s generated a great deal of research interest into the curative elements of the group process (Hartley, Roback, & Abramowitz, 1976). In addition to examining the positive effects of group treatment, researchers also looked at the “possible psychonxious effects of... groups” (Hartley et al., 1977, p. 247), particularly encounter groups (Hartley et al.). Empirical and anecdotal evidence (Dies & Teleska, 1985; Hartley et al.; Mohr, 1995) indicates that up to 50% of group participants may experience “negative outcome” in group psychotherapy (Dies & Teleska; Hartley et al.; Mohr), where “negative outcome” is defined as “actually becom[ing] worse as a result of treatment... shown by an
exacerbation of presenting symptoms, appearance of new symptoms, patient misuse of therapy (e.g., to rationalize maladaptive behavior), or disillusionment with treatment” (Dies & Teleska, p. 118). A review of the literature indicates that there are patient variables, therapist variables, and also group process variables that are likely to contribute to treatment nonresponse and negative response in group psychotherapy (Dies & Teleska; Hartley et al.; Lambert et al., 1986; Mohr).

The patient traits most often associated with “negative outcome” within group psychotherapy treatment involve psychological fragility, emotional vulnerability (Dies & Teleska, 1985; Hartley et al., 1977; Lambert et al., 1986; Mohr, 1995), and interpersonal sensitivity (Dies & Teleska; Hartley et al.; Lambert et al.). Specifically, in non-patient groups (i.e., encounter groups), individuals with a history of mental illness or “psychological distress” (Hartley et al., p. 250) were more likely to experience “negative outcomes” than those with no previous history of mental illness (Hartley et al.). In patient groups, the severity and acuity of psychological illness was also found to predispose individuals to nonresponse or negative response (Dies & Teleska; Lambert et al.; Mohr). In both patient and nonpatient groups, individuals with low self-esteem and preexisting deficits in interpersonal skills (i.e., a lack of skills for integrating into groups, the absence of an ability to defend against inappropriate feedback, intense negatively feedback, or verbal attacks) seemed to be at greater risk for nonresponse or negative response (Dies & Teleska; Hartley et al.; Lambert et al.). Relatively high levels of interpersonal sensitivity, including an inability to put the feedback of others into perspective, also put both patients and nonpatients at risk for
nonresponse or negative response (Hartley et al.; Lambert et al.). Those who were unwilling or unable to recognize and follow group norms and social cues (Dies & Teleska; Hartley et al.), and those lacking in a capacity for insight and concomitant personal change/adaptation were also at particular risk for nonresponse or negative response (Dies & Teleska; Hartley et al.; Lambert et al.).

Certain therapist, or group leader, traits and particular group processes have also been associated with patient nonresponse and negative response ("group casualties") (Dies & Teleska, 1985; Hartley et al., 1977). Therapist traits associated with group member nonresponse or negative response primarily involve insensitivity to each individual group member’s tolerance for confrontation, either by the therapist or other group members (Dies & Teleska; Hartley et al.; Lambert et al., 1986). Hostile, negative confrontations by either the therapist or other group members (in the absence of redirection by the therapist), have been found to lead to nonresponse or negative response (Dies & Teleska; Hartley et al.; Lambert et al.) as well. Group members of psychotherapists who take either a highly structured, "overly-confrontational" (Hartley et al., p. 252) role in which emotional disclosure and rapid change are expected of all members (Dies & Teleska; Hartley et al.; Lambert et al.), or a highly unstructured (Hartley et al.), "hands off" (Dies & Teleska, p. 132; Hartley et al., p. 252) attitude in which the group members are given full reign of the group's direction, are more likely to experience nonresponse or negative response to the group treatment (Dies & Teleska; Hartley et al.). Thus, group processes that are either overly structured and focused on confrontation, or those that are not structured or guided by a skilled
clinician, are more likely to create “group casualties” (Dies & Teleska; Hartley et al.). Empirical and anecdotal evidence indicates that groups run by a skilled clinician (Hartley et al.) who is trained in both group therapy and the assessment of individuals (Dies & Teleska; Hartley et al.), conducts a screening of potential group members (Dies & Teleska; Hartley et al.), carefully assembles cohesive groups (Dies & Teleska), and skillfully guides the group process, will result in the highest treatment response rate and the lowest incidence of nonresponse and negative response (Dies & Teleska).

**Family therapy.**

As in all of the aforementioned psychotherapy modalities, very little research has been conducted into the occurrence of nonresponse and negative response in marriage and family therapy (Kniskern & Gurman, 1985). Based on a meta-analysis of 200 marriage and family therapy studies conducted by Gurman and Kniskern (1978, cited in Kniskern & Gurman, 1985), approximately 30% of couples and families experience treatment nonresponse, and 2% experience negative response during marriage and family therapy, where “negative response” is defined as an overall worsening in marital or family relationships (although one member may experience improvement). Similar to studies of the effectiveness of other treatments, many of the studies reviewed (164 in all) “either did not include an outcome category of ‘worse,’ or combined the categories of ‘no change’ and ‘worse,’” so that the aforementioned “rates
of deterioration... were biased against finding (or presenting) evidence of this phenomenon” (Kniskern & Gurman, p. 109). Therefore, the overall rates of nonresponse and negative response in marital and family therapy may, ultimately, be higher than this estimate (Kniskern & Gurman). Kniskern and Gurman indicated that of the “36 studies that did allow for the possibility of the occurrence of negative effects, almost half (42%) presented reasonable or undeniable evidence of deterioration” (p. 109) during marital and family therapy.

In a more recent meta-analysis of marital and family treatment outcome across 163 studies, Shadish et al. (1993) found treatment effect sizes “ranging from -.15 to 4.50,” with six studies reporting “negative average effect sizes” (p. 994), providing some evidence for the occurrence of nonresponse and negative response. In addition, while the researchers indicate an overall average effect size of .51, they also indicate “[t]his is a conservative estimate because it includes effect sizes reported only as nonsignificant” (Shadish et al., p. 994). When nonsignificant effect sizes were not included in the effect size calculation, the overall average effect size of marital and family therapies increased to .61 (Shadish et al.). Unfortunately, it is not possible to determine, from the data provided, the number of studies reporting null findings (Shadish et al.). In general, though, the findings of Shadish et al. indicate “a treatment success rate... of about 62%... in marital and family therapies, compared with 38%... in control groups” (p. 994). Viewed from the perspective of nonresponse and negative response, which was not addressed by the researchers, the findings also indicate that treatment was not successful 38% of the time, although the distinct percentage of
nonresponders and negative responders was unclear (Shadish et al.). As with all other treatment modalities, additional research into treatment response, nonresponse, and negative response rates in marital and family therapy is needed in order to obtain a more accurate appraisal of treatment outcomes in this treatment modality, and to identify, with some degree of accuracy, the factors involved in each type of outcome (Kniskern & Gurman, 1985).

Still, several patient, therapist, and treatment factors have been implicated in the treatment nonresponse and negative response phenomenon as they occur in marital and family therapy (Kniskern & Gurman, 1985). Similar to the findings with regard to group psychotherapy (Kniskern & Gurman), in couples or families in which one or more members exhibits "relatively low ego strength" (Kniskern & Gurman, p. 108), and in highly confrontational couples or families in which the extent of confrontation is not managed or regulated properly by the psychotherapist, treatment nonresponse and negative response are more likely to occur (Kniskern & Gurman). Also similar to group therapy findings, marriage and family therapists who favor an unstructured approach to treatment, tend to be overly confrontational and negative with one or more of the individuals in treatment, and who do not actively solicit the participation of all of the individuals involved in the treatment process are more likely to have patients who do not respond to treatment or deteriorate in treatment (Kniskern & Gurman). While few treatment factors associated with treatment nonresponse and negative response in marital and family therapy have been isolated, empirical evidence does indicate that marital psychotherapy conducted with individuals (i.e., without both partners present)
results in negative treatment response more frequently than when marital therapy is conducted with both partners present (Kniskern & Gurman). As with other treatment approaches, further research is needed to elucidate the various isolated and interactive variables associated with treatment nonresponse and negative response in marital and family therapy (Kniskern & Gurman).

**Eating disorders.**

The challenges involved in successfully treating patients with eating disorders, particularly anorexia nervosa, have been noted by many (Bruch, 1974; Horne, 1985; Kaplan & Garfinkel, 1999; Wilson, 1996). Despite the acknowledgement of the difficulties involved in treating this population, surprisingly little has been written about treatment nonresponse and negative response among patients diagnosed with eating disorders (Wilson). Moreover, the small body of existing literature is either strictly anecdotal in nature (Bruch; Kaplan & Garfinkel), or involves the discussion of empirical treatment outcome studies in which the percentage of patients demonstrating nonresponse or negative response reactions is mentioned as an aside, in the context of the reported successful treatment outcomes (Wilson).
Bruch (1974) provided the earliest discussion of nonresponse and negative response in the treatment of anorexia nervosa that could be located. Bruch was particularly concerned with the provision of strict behavioral treatment for anorexia nervosa patients; she expressed the belief that behavioral treatment not only failed to address the underlying dynamic issues driving the disorder, but also actually triggered deterioration in many patients. Specifically, Bruch indicated:

During the past three years, consultation was requested for more than 50 patients with anorexia nervosa. Often, behavior modification was mentioned as the method that had been used whereby weight gain had been followed by weight loss and deterioration of the total picture. [...] Rather commonly, hospital reports imply [sic] that patients had been greatly improved on discharge. The subsequent decline is reported by the families themselves or by other physicians who have seen the patients consequently. [...] Since early 1972, nine patients were studied in whom behavior modification had been used with damaging results... (p. 1419).

Bruch (1974) presented three case studies of patients for whom this had been the case. A similar pattern of illness occurred across all three cases, including the nature of symptom onset, the resulting hospitalization, and the application of behavioral treatment interventions involving punishment (deprivation of pleasant stimuli) for further weight loss or low weight maintenance and reward for weight gain (Bruch). Bruch indicated that, in all three cases, patients had “successfully” gained weight; they had thus been discharged from the inpatient programs providing
treatment. Subsequently, however, all three patients had become severely depressed, had resumed eating-disordered behaviors, and had again reduced their weight to dangerously low levels (Bruch). Two of the patients presented had also become suicidal following their discharge from behavioral inpatient treatment (Bruch). Bruch strongly criticized such behavioral treatment approaches, stating “this method provokes... serious psychological damage” by “increas[ing] the inner turmoil of patients who feel tricked into relinquishing control over their bodies and their lives” (p. 1421). She further indicated her belief that

[t]he feeling of all-pervasive ineffectiveness is one of the root problems in the development of anorexia nervosa. The struggle to attain a sense of initiative and self-directed identity is a core issue after a childhood of robot-like obedience. The psychological consequences of behavior modification are disastrous because patients feel trapped in a crushing dilemma, feeling forced to chose between equally unacceptable evils. Thus, without psychological support and hope for better self-understanding, this method undermines the last vestiges of self-esteem and destroys the crucial hope of ever achieving autonomy and self-determination (p. 1421).

Bruch therefore strongly argued that the symptom of extreme weight loss was merely one element of anorexia nervosa requiring treatment, and that successful treatment involved addressing the emotional, cognitive, and interpersonal components of the disorder as well.
Along with the evolution of cognitive and behavioral therapies over the last two decades, treatments for both anorexia and bulimia have become more sophisticated as well (Kaplan & Garfinkel, 1999; Wilson, 1996). Presently, “the first-line treatment choice for bulimia nervosa” (Wilson, p. 197) is cognitive-behavioral treatment (Hollon & Beck, 1994; Wilson). Also emphasized in the successful treatment of anorexia nervosa is the need to address the cognitive and behavioral correlates of the disorder within the context of a warm, trusting, respectful therapeutic relationship in which confrontation and power struggles are avoided (Kaplan & Garfinkel). Despite these advances, however, experts acknowledge that such treatments result in “no more than roughly 50%” of bulimics “ceasing binge eating and purging,” with “the remainder... showing partial improvement” and “a small number deriving no benefit at all” (Wilson, p. 199). Similarly, “30% of [anorexia nervosa] patients” remain “chronically ill over 10-year follow-up and 10% [die] of the illness” (Kaplan & Garfinkel, p. 665).

Several factors have been implicated in the increased risk of treatment nonresponse and negative response in anorexia nervosa and bulimia nervosa (Kaplan & Garfinkel, 1999; Wilson, 1996). The most heavily emphasized risk factor for treatment nonresponse and negative response in the treatment of anorexia nervosa and bulimia nervosa is the presence of comorbid borderline personality disorder or other Axis II disorder (Kaplan & Garfinkel; Wilson). The increased risk of nonresponse and negative response in patients with Axis II disorders will be discussed in greater depth in the next section of this manuscript. Kaplan and Garfinkel have also suggested that comorbid depression, anxiety, substance abuse, diminished capacity for trusting others,
and a weak therapeutic alliance are additional risk factors for treatment nonresponse and negative response in both anorexia and bulimia nervosa.

To recap, the relatively high prevalence of treatment nonresponse and negative response among patients with eating disorders is frequently acknowledged by researchers and clinicians with expertise in eating disorders (Bruch, 1974; Horne, 1985; Kaplan & Garfinkel, 1999; Wilson, 1996). Unfortunately, researchers have failed to explicitly explore the specific patient, therapist, and treatment factors involved in treatment nonresponse and negative response within this population (Horne; Kaplan & Garfinkel; Wilson). There is a great need for empirical research into this area given the relatively large percentage of patients who continue to suffer from eating disorders to some degree, despite having received high-quality, empirically supported treatment (Wilson). In the absence of such research efforts, a sustained, relatively high rate of treatment nonresponse and negative response among the population of patients suffering from eating disorders can be expected (Mohr, 1995).
Borderline personality disorder.

The most frequently mentioned risk factor in treatment nonresponse and negative response by far (Lambert et al., 1986; Mays, 1985; Mohr, 1995; Wilson, 1996), patients with borderline personality disorder are notoriously difficult to treat (Aronson & Weintraub, 1968, 1969; Chessick, 1982; Colson, Lewis et al., 1985; Kernberg, 1973; Linehan et al., 1991; Linehan et al., 1993; Linehan & Kehrer, 1993; Mays; Stone, 1985; Wilson). This is, perhaps, due to the extent to which the borderline patient’s symptomatology impacts the treatment process (Colson, Lewis et al.; Linehan et al., 1991; Linehan & Kehrer; Kaplan & Garfinkel, 1999; Kernberg; Mays). Inherent in borderline pathology are extreme (Mays) distortions in the patient’s sense of self (Kaplan & Garfinkel; Linehan & Kehrer; Mays; Stone), cognition (Linehan et al., 1991; Linehan & Kehrer; Mays), affect (Kaplan & Garfinkel; Linehan et al., 1991; Linehan & Kehrer; Mays; Stone), behavior in general (Kaplan & Garfinkel; Linehan et al., 1991; Linehan & Kehrer; Mays; Stone), and interpersonal behavior specifically (Chessick; Colson, Lewis et al.; Kaplan & Garfinkel; Linehan et al., 1991; Linehan & Kehrer; Mays; Kernberg; Stone), influencing the patient’s ability to benefit from treatment (Chessick; Kaplan & Garfinkel; Linehan et al., 1991; Mays; Mohr et al., 1990; Stone). In addition, the expression of borderline pathology tests the therapist’s skills (Colson, Lewis et al.; Kernberg; Lehman & Salovey, 1990; Linehan & Kehrer; Mays; Stone; Strupp, 1980d), impacts the therapist’s ability to maintain a neutral stance toward the patient (Chessick; Colson, Lewis et al.; Lehman & Salovey; Linehan
& Kehrer; Mays; Stone; Strupp, 1980a; 1980b; 1980c; 1980d), and may reduce the therapist’s capacity to provide a warm, supportive, nurturing treatment environment for the patient (Lehman & Salovey; Linehan & Kehrer; Mays; Stone). Consequently, the formation of the therapeutic alliance is frequently hindered, and treatment effectiveness may be undermined (Chessick; Colson, Lewis et al.; Foley, O’Malley, Rounsaville, Prusoff, & Weissman, 1987; Kaplan & Garfinkel; Lehman & Salovey; Linehan & Kehrer; Mays; Stone). Ultimately, all of these factors likely converge to increase the risk of treatment nonresponse or negative response in patients with borderline personality disorder (Colson, Lewis et al.; Dies & Teleska, 1985; Kaplan & Garfinkel; Kernberg; Lambert et al.; Linehan & Kehrer; Stone).

Despite the well-known difficulties involved in treating patients with borderline personality disorder, surprisingly little empirical research specifically investigating nonresponse and negative response in patients with borderline personality disorder has been conducted (Mohr, 1995). The dearth of empirical evidence is striking, particularly when contrasted with the abundance of anecdotal evidence documenting the high incidence of treatment failure in this population (Colson, Lewis et al., 1985; Kernberg, 1973; Mays, 1985; Mohr, 1995; Stone, 1985; Wilson, 1996). This is especially unfortunate given the high rates of morbidity and mortality associated with borderline personality disorder (Linehan et al., 1991; Linehan et al., 1993; Linehan & Kehrer, 1993).
Several studies have specifically linked borderline personality disorder to elevated rates of treatment nonresponse and negative response in psychodynamic treatments (Aronson & Weintraub, 1968; Colson, Lewis et al., 1985; Kernberg, 1973; Mohr, 1995). In addition, as previously described in this manuscript (please refer to page 122), patients diagnosed with borderline personality disorder exhibiting particularly low levels of ego strength (Kernberg; Mohr), an "extremely impaired" capacity for interpersonal relationships (Kernberg; Mohr, p. 11), a tendency to engage in intensely hostile, aggressive interactions with the therapist (Colson, Lewis et al.; Henry, Schacht et al., 1993; Henry, Strupp et al., 1993; Kernberg; Strupp 1980a, 1980b, 1980c, 1980d), and those demonstrating a markedly "masochistic" personality style (Colson, Lewis et al., p. 60; Mohr) may be at an increased risk for nonresponse and negative response in psychodynamic treatments. Based on this small body of research, it is possible that specific personality variables, which tend to be more frequently associated with borderline personality disorder than with other diagnoses, are the actual risk factors for treatment nonresponse and negative response, rather than the diagnosis of borderline personality disorder alone.

Overall, the low rate of empirical research in this area is perhaps the result of clinicians' and researchers' beliefs that treatment nonresponse and negative response are a given – the rule rather than the exception – in the treatment of patients with borderline pathology (Linehan et al., 1993; Stone, 1985), and thus require no further investigation. Another possibility, however, is that research into nonresponse and negative response in patients with borderline personality disorder will not commence
until the effectiveness of psychotherapy treatment with this population can be demonstrated (Foa et al., 1983). This seems the most likely explanation, given that nonresponse and negative response research in psychotherapy in general, and in specific treatments and discrete populations specifically, has followed this pattern. If this is the case, the emergence of Dialectical Behavior Therapy (DBT) in the early 1990’s as the first empirically-supported treatment for borderline personality disorder (Linehan et al., 1991; Linehan et al., 1993; Linehan & Kehrer) increases the likelihood that research into nonresponse and negative response in patients with borderline personality disorder will be conducted in the near future.
Obsessive-compulsive disorder.

Of patients treated for obsessive-compulsive disorder (OCD) with the treatment of choice, a cognitive-behavioral therapy involving exposure to the feared stimulus and prevention of the anxiety-lowering compulsive response (exposure and response prevention), "60% to 85% showed significant improvement" (Foa et al., 1983, p. 287). Based on these figures, it can be assumed that 15% to 40% of those treated with cognitive-behavioral therapy experienced either nonresponse or negative response. Others have estimated the incidence of "negative response" in the treatment of patients with OCD to be between 14% and 28% (Foa & Steketee, 1977; Mohr, 1995; Vaughan & Beech, 1985). As in other areas of the psychotherapy literature, little research has been conducted into treatment nonresponse and negative response in patients with OCD (Vaughan & Beech). Yet contrary to the state of the research in most other areas, two excellent studies – one employing case study methodology and one involving a detailed empirical treatment outcome analysis – have been conducted providing substantial insight into the nonresponse and negative response phenomenon as it occurs in OCD patients (Foa et al.; Foa & Steketee).

Early research using case study methodology indicated that new fears could emerge in OCD patients following exposure and response prevention treatment when patients were not completely cognizant of the full range and intensity of their fears (Foa & Steketee, 1977). Contrary to other OCD patients treated by Foa and Steketee, these patients seemed to hold "no expectation... [that] disastrous consequences" would
follow treatment, and they experienced a "rapid extinction of the initial fears" they presented with, only to experience the emergence of new fears following treatment (Foa & Steketee, p. 357). In these three obsessive-compulsive patients, treatment of the new fears with exposure and response prevention ultimately led to the remission of obsessive-compulsive symptoms (Foa & Steketee).

In 1983, Foa and her colleagues conducted a more in-depth, empirical outcome study of nonresponse and negative response in OCD patients treated with exposure and response prevention. These researchers assessed 50 patients diagnosed with OCD for symptom type, severity, duration, and age of onset (Foa et al.). Following treatment, the ratings of independent assessors indicated that 58% of patients were "much improved," defined as an "improve[ment] of 70% or more" (Foa et al., p. 289); 38% were "improved," defined as treatment "gains of 31% to 69%" (p. 289); and 4% were "failures," in that they "improved 30% or less" in treatment (p. 289).

Further data analyses revealed the following three factors as heavily influential in treatment outcomes: level of "pre-treatment anxiety;" age of symptom onset; and level of "pre-treatment depression" (Foa et al., 1983, p. 294). A path analysis was then used to trace the subfactors comprising each of these three major factors (Foa et al.). Both pre-treatment anxiety level and age of onset were found to have a direct impact on treatment outcome with no intervening subfactors (Foa et al.). Specifically, "[l]ow initial anxiety was... predictive of successful outcome," although "high anxiety... did not necessarily lead to failure... highly anxious patients were as likely to succeed as fail" (Foa et al., p. 295). Also, patients with symptom onset at an earlier age...
experienced greater maintenance of treatment gains than patients with later symptom onset, a counterintuitive finding defying explanation (Foa et al.).

The relationship between level of depression and outcome was more complicated, and it involved many intervening subfactors (Foa et al., 1983). Analyses revealed that “depression affect[ed] treatment outcome via its positive relationship with reactivity” (Foa et al., p. 295, italics of original), where reactivity was defined as the patient’s “verbal report of anxiety when first exposed to the most feared stimuli” (pp. 290-291). Reactivity was found, “in turn, [to] impede... habituation [reduction in anxiety level] and thus interfere... with responsiveness to behavioral treatment” (Foa et al., p. 295).

Overall, the researchers found that depression had “a more extensive influence” on outcome, which was more consistent than the impact of either of the other major factors (Foa et al., 1983, p. 295), broadly influencing “reactivity and habituation, as well as... anxiety level” (p. 295). Collectively, the level of pre-treatment anxiety, the age of symptom onset, and the pre-treatment level of depression, along with its subcomponents, accounted for only 40% of the outcome variance (Foa et al.), a finding illustrative of the incredible complexity of the nonresponse and negative response phenomenon. Still, based on these findings, Foa et al. were able to make the recommendation that OCD patients exhibiting high levels of depression be treated for the depressive symptomatology prior to exposure and response prevention treatment. This would remove the negative influence of depression on exposure and response
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prevention treatment outcome, maximizing the likelihood of treatment success and remission of OCD symptoms (Foa et al.).

Unipolar depression.

Although two excellent, empirically-supported psychotherapy treatments have been developed for major depressive disorder (cognitive-behavioral therapy [CBT] and interpersonal therapy [IPT]) (Elkin, 1994), there is nonetheless evidence of treatment nonresponse and negative response among depressed patients treated with either one of these treatment modalities (Elkin; Fennell & Teasdale, 1982, 1987; Hollon & Emerson, 1985). For example, in the largest controlled clinical treatment outcome trial conducted in the United States, results indicated that a total of approximately 50% of patients treated with CBT and 60% of IPT experienced treatment nonresponse or negative response (Elkin). Considering the demonstrated efficacy of CBT and IPT in the treatment of patients with unipolar major depressive disorder (Elkin), this combined rate of nonresponse and negative response is surprisingly high, lending credence to the argument that further investigation into nonresponse and negative response is urgently needed (Fennell & Teasdale, 1982, 1987; Mohr, 1995; Mohr et al., 1990).
The largest body of well-controlled research into the treatment nonresponse and negative response phenomenon has been conducted in the area of depression, mainly by researchers employing cognitive-behavioral treatments (Fennell & Teasdale, 1982, 1987; Mohr et al., 1990). Fennell and Teasdale published two excellent studies in this area, the first of which investigated treatment response in a small group of “chronic, drug-refractory depressed outpatients” treated with CBT (p. 455). As noted by Fennell and Teasdale (1982), this population has been excluded from the larger clinical trials of CBT in depressed outpatients. In order to investigate the efficacy of CBT with this population, Fennell and Teasdale recruited a sample of five patients, all of whom met “Research Diagnostic Criteria” for major depression (1982, p. 456), had experienced moderate- to high-levels of depression (according to the Beck Depression Inventory and Hamilton Rating Scale) for at least three continuous months, and had “failed to respond to an adequate trial of antidepressants” (p. 456). Both researchers were specifically trained in CBT and had achieved “good results” (p. 457) using the treatment with depressed outpatients in previous clinical research; they provided the participants with 20 sessions of CBT during 12 weeks of treatment (Fennell & Teasdale, 1982).

At the end of treatment, Fennell and Teasdale (1982) reported “[o]nly one patient was... markedly or completely improved... [t]wo remained unchanged, and two had... reductions of 11 points each” on the Beck Depression Inventory (p. 457). These results were “more modest” than those obtained in previous trials of CBT (Fennell & Teasdale, p. 457). In evaluating their results, the researchers indicated that, while the
possibility that they "are poor cognitive therapists" (p. 457) must be entertained as an explanation of the results, evidence of their clinical effectiveness from other treatment outcome studies seemed to rule against this conclusion. Instead, Fennell and Teasdale (1982) suggested that the severity, chronicity and lengthy duration of the participants' symptoms, low capacity for stress tolerance, moderately to severely impaired life functioning, and history of previous unsuccessful treatment episodes were likely to account for the treatment nonresponse exhibited. This led the researchers to declare an urgent need to further delve into the factors involved in treatment nonresponse and negative response.

In 1987, Fennell and Teasdale further investigated individual participants' patterns of response to treatment for unipolar major depressive disorder with either 20 sessions of CBT or a "treatment as usual" (TAU) (defined as being "whatever the family doctor would usually recommend") (p. 254) condition. Similar to their 1982 work, the researchers utilized "Research Diagnostic Criteria," the Beck Depression Inventory, and the Hamilton Rating Scale to confirm participants' diagnoses and to rate participants' pre- and posttreatment levels of depressive symptomatology (Fennell & Teasdale, p. 254). Results indicated that while participants receiving CBT demonstrated significantly greater symptom improvement than those in the TAU condition immediately following treatment, this difference was no longer present at the three-month follow up, "mainly because of continued improvement in the TAU group" (p. 254). Thus, the researchers concluded, "it appeared that CBT hastened recovery from a major depressive disorder" (p. 254).
Upon closer investigation of individual participant responses to CBT treatment, Fennell and Teasdale (1987) found that two treatment response patterns could be distinguished. One group of patients, labeled the “steeps” by the researchers, demonstrated rapid symptom improvement (50% or greater), according to scores on the Beck Depression Inventory, by the second week of treatment (Fennell & Teasdale, p. 256). These participants showed the greatest treatment gains at posttreatment and “remained significantly less depressed” than other participants in the study at three-month follow-up (Fennell & Teasdale, p. 256). Conversely, a group of patients named the “slights” by Fennell & Teasdale, responded more slowly to CBT treatment and demonstrated significantly less improvement than other participants (including those in the TAU condition) both at posttreatment and at follow-up. Within the group of “slights,” one patient showed improvement, albeit significantly less improvement than any of the “steeps,” “five were mildly depressed,” and “three remained severely depressed” (Fennell & Teasdale, p. 257). A similar division between patients demonstrating rapid response following the second week of treatment and those exhibiting slow response and/or a gradual deterioration in psychological status could be seen among participants in the TAU group, although even the “TAU steeps” experienced significantly less improvement than the “CBT steeps” (Fennell & Teasdale, p. 256).

Fennell and Teasdale (1987) offered several explanations for the findings, including a very positive response to the CBT conceptualization of depression and CBT homework assignments among the “steeps.” Overall, though, researchers found
that "[n]o obvious explanation offered itself for the extreme treatment refractoriness of a small number of CBT patients. All were severely depressed pretreatment, but a number of equally severely depressed patients did very well" (p. 269). This led Fennell and Teasdale to conclude that, first, further empirical investigation into differential treatment responsiveness in depressed outpatients was clearly needed. Second, they recommended that

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\text{patients who are slower to respond but ultimately do well probably require all the opportunity to practice depression-management skills that 20 (or more) sessions can offer... Those who altogether fail to respond, on the other hand, might do better to receive the minimum number of sessions possible, since lengthy experience of unsuccessful CBT is painful and demoralizing for both therapist and patient (p. 270).}
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Obviously, further investigation into the nonresponse and negative response phenomenon, coupled with the development of specific treatments for the treatment-refractory population, is preferable by far to the simple strategy of limiting treatment to avoid demoralization in the patient and therapist.

As previously mentioned, the most comprehensive investigation of treatment nonresponse and negative response to date, and that conceptually closest to the study proposed herein, was conducted by Mohr et al. (1990) as part of a larger study investigating psychotherapy treatment in outpatients with major depressive disorder conducted by Beutler et al. (1991). In order to gain an understanding of the patient
factors involved in treatment nonresponse and negative response, Mohr et al. studied a subsample of 62 patients participating in the main, controlled research study.

Requirements for participation in the study conducted by Mohr et al. (1990) included completion of a clinical interview and psychological assessment battery (consisting of a broad range of objective and subjective diagnostic, symptom, personality, interpersonal/social functioning, and patient treatment-attitude inventories), a diagnosis of unipolar depression (according to DSM-III-R criteria) without psychotic features, recent suicidal ideation, or concomitant substance abuse, and a score of greater than 15 on the Hamilton Rating Scale for Depression (HRSD) (Beutler et al., 1991; Mohr et al.). In addition, patients agreed to forego treatment with antidepressant and anxiolytic medications and all other psychological treatments for the duration of their participation in the study (Mohr et al.).

Patients meeting study inclusion criteria were randomly assigned to one of three depression treatment conditions: a “group cognitive therapy (CT)” condition, a group “focused expressive psychotherapy (FEP)” condition, and a “supportive, self-directed therapy (S/SD)” treatment condition (Mohr et al., 1990, p. 623). Treatment consisted of 20 (Beutler et al., 1991) weekly group treatment sessions of 90-minute duration conducted by four Ph.D.-level psychologists with 6-25 years of treatment experience (Mohr et al.). The treatment sessions were monitored for adherence to the treatment model in question (Mohr et al.). Weekly administration of the Beck Depression Inventory (BDI) measured the treatment progress and outcome of participants (Mohr et al.).
At the conclusion of the study, 61 participants had completed treatment (Mohr et al., 1990). Of these, 34 were categorized as “positive responders,” 18 as “nonresponders,” and 9 “negative responders” based on the following criteria suggested by Jacobson and Truax (1991) (Mohr et al., p. 623):

Subjects were classified as negative responders if they met one of two criteria: (a) Final BDI scores were one normative standard error of measurement (SEM) or more above their Week 1 scores \( (n = 8); \) or (2) scores were unchanged, but both the therapist and independent evaluator judged the subject to have deteriorated enough to require terminating the study protocol and initiating alternative treatment \( (n = 1) \). Subjects were classified as positive responders if their final BDI score was one SEM or more below their Week 1 BDI. Subjects whose end-of-treatment scores were within ± 1 SEM of Week 1 scores were classified as nonresponders (p. 623).

Mohr et al. evaluated and compared treatment responders, nonresponders, and negative responders according to self-rated global and specific depressive symptoms, interpersonal functioning/style, and demographic features. Because the outcome results of participants in each of the outcome categories did not differ \( (p > .15) \) as a function of the specific treatment type received or the therapist administering it, and because no statistically significant differences among the treatments administered were found \( (ps > .45) \), the researchers collapsed the results of the patients in each outcome category (Mohr et al.).
An analysis of participants' results revealed several interesting findings. Mohr et al. (1990) found that "a significant number of the variables... related to the direction and magnitude of therapeutic change [fell] within one of two major classes" (p. 627). First, individuals' scores with regard to "psychic distress" level were significantly associated with their outcome classification in a linear fashion \[ F(2, 59) = 36.07, p < .001 \] (Mohr et al., p. 627). Psychic distress was found to "account... for 36% of the variance in group designation" (p. 625); the three outcome groups differed significantly with regard to psychic distress level (Mohr et al.). More detailed analyses revealed that of "the two BSI [Brief Symptom Index] subscales that contributed to the psychic distress function score," "both psychoticism (social alienation), \( F(2, 52) = 7.63, p < .01, \) and anxiety, \( F(1, 52) = 8.39, p < .01, \) scores were significantly and linearly related to outcome type" (Mohr et al., p. 626). The researchers found that "[p]sychoticism explained 13.2% of the variance in [outcome] group assignment, and anxiety accounted for 14.4% of the variance" (p. 626). In addition, "a similar significant relation between the General Symptom Index (GSI) subscale and outcome type" was found (Mohr et al., p. 626). Given that "[t]he GSI subscale is a composite of all nine symptom dimensions measured by the BSI," the significant linear relationship between scores on "specific [GSI] scales of anxiety and psychoticism, \( F(1, 58) = 4.33, p < .05, \)" which "accounted for 19.4% of the variance" (Mohr et al., pp. 626-627), provided further evidence of the role played by anxiety, social alienation, and overall psychic distress in treatment outcome.
The second major class of variables associated with the degree and type of treatment outcome experienced was "interpersonal distress" (Mohr et al., 1990, p. 626). Overall, variables related to interpersonal distress "accounted for 31% of the variance, $F(2, 59) = 26.79, p < .001" in treatment outcomes (Mohr et al., p. 626). A more detailed analysis revealed that

[a] significant quadratic trend was observed for [two variables associated with interpersonal distress:] H. assertive (hard to be assertive), $F(1, 54) = 7.24, p < .01$, and H. intimate [hard to be intimate], $F(1, 54) = 5.93, p < .05$. In the latter case, however, a linear component was also observed, $F(1, 54) = 4.17, p < .05$, and none of the other variables contributed significantly to the total variance (p. 627).

In interpreting the above-noted findings, Mohr et al. (1990) reached two primary conclusions. First, "[h]igh psychic distress was linearly related to the amount of improvement, the latter variable ranging from negative change to positive change" (p. 627). Thus, psychic distress "seemed to be implicated both in activating the patient" to change in treatment, and "in determining whether the change [would] be in a positive or negative direction" (Mohr et al., p. 627). Mohr et al. posited that psychic distress may be a "motivating factor for producing therapeutic work" (p. 627); participants within the positive treatment response group tended to report high levels of psychic distress, while negative responders reported significantly lower levels of psychic distress, and nonresponders experienced intermediate levels of subjective psychic distress. Others (Aronson & Weintraub, 1969; Colson, Lewis et al., 1985;
Kernberg, 1973) have arrived at similar conclusions, given that higher levels of anxiety were associated with greater global improvement and larger increases in ego strength at the end of psychodynamic treatment research. These researchers have also posited that higher levels of anxiety serve to motivate patients in treatment (Colson, Lewis et al.; Kernberg). Overall, based on these findings, Mohr et al. concluded, “[a]pparently an awareness of disturbed functioning, even if one is unable to specify its source or nature, is important for motivating change in psychotherapy. The absence of such self-acknowledged dysfunction may even portend treatment-related deterioration” (p. 627).

Second, Mohr and colleagues (1990) indicated, interpersonal distress “[i]n this study... was relatively high both among those who improved and among those who got worse” (p. 627), leading them to conclude that “the awareness of interpersonal distress seems only to be implicated in activating the patient to make some change, irrespective of the direction of that change” (p. 627). In interpreting this finding, Mohr et al. suggested:

...if one is able to identify the source of distress within current interpersonal relationships, he or she may be open to change, but the direction of that change depends on other factors. The patient who changes positively may also be one who is aware of sources of distress besides those that exist in interpersonal relationships. Perhaps positive therapeutic change requires both an awareness of one’s own helplessness or weakness (psychic distress) and the awareness that not all of this distress can be attributed to others (p. 627).
This interpretation is also supported by previous research indicating that patients who are able to acknowledge their role in their emotional problems, as opposed to “perceiv[ing] [their] psychological problems as environmentally provoked and determined,” are more likely to experience positive outcomes in treatment (Kernberg, 1973, p. 74). Those looking for external explanations for their problems were considered more likely to experience nonresponse or negative response (Kernberg).

Overall, treatment research regarding nonresponse and negative response in depressed patients emphasizes the importance of further research into this phenomenon. As illustrated by the research of Mohr et al. (1990), it is clearly important to investigate both treatment nonresponse and negative response. As their findings indicate, those who maintain pretreatment psychological status and those who deteriorate are likely to comprise two distinct subgroups of patients, with diverse characteristics by which they may eventually be identified (Mohr et al.). The capacity to make such distinctions about patients would be of great clinical value, as the two groups are at different levels of risk for symptom exacerbation and deterioration in psychological status. Patients within each category may also be at varying degrees of risk for suicide, threat to the safety of others, and/or levels of dysfunction requiring hospitalization. Therefore, as previously noted, “nonresponders” and “negative responders” will be investigated as distinct subgroups in the present study, with the anticipation that unique characteristics will distinguish each subgroup.
Reasons for the Failure to Address Treatment Nonresponse and Negative Response

Phenomena in the Psychotherapy Literature

Despite agreement that Bergin (1963, 1966, 1967, 1970, 1971, 1980), and later Strupp and his colleagues (1977), drew attention to an important phenomenon in psychotherapy worthy of further investigation (Barbrack, 1985; Kniskern & Gurman, 1985; Lambert et al., 1986; Mays & Franks, 1980, 1985c; Strupp et al.; Stone, 1985), as previously noted both theoretical and empirical attention to treatment nonresponse and negative response have been sparse (Barbrack; Kniskern & Gurman; Lambert et al.; Mohr et al., 1990). As noted by perceptive critics Graziano and Bythell,

Failure is an event, and bound up with this event are our reactions to it. Our traditional response to failures is to reject them, to consign them... to the refuse heap where they are expected to decay and disappear into our tolerant environment like all our wastes and useless by-products. We tend not to “recycle” our failures and process what may be valuable in them; to examine conditions under which they occur so as to make appropriate adjustments in our procedures (1983, p. 79).

The nearly complete failure of clinical and research psychologists to investigate treatment nonresponse and negative response is unfortunate, given the great potential value inherent in such explorations (Mohr, 1995). Several explanations for the lack of acknowledgement of, and research into, the treatment nonresponse and negative response phenomena have been suggested.
Fear of being associated with Bergin’s faulty logic.

It is highly likely that Bergin’s initial formulation of the nonresponse and negative response phenomenon in causal terms – a stance he has never actually reversed and continues to assert (Lambert & Bergin, 1994) – caused other theorists and researchers to shy away from the topic out of concern that they would be associated with Bergin’s faulty logic (Barbrack, 1985; Mays & Franks, 1985a). As cogently argued by Mays & Franks,

...the question was incorrectly posed from the start. [...] Negative outcome was originally framed in terms of causality and restricted to those cases in which a decline in patient functioning is directly attributable to the therapy or the therapist. Since causality is intrinsically difficult to demonstrate, the entire issue stalled on the question of whether negative effects as defined exist at all. With the focus on whether psychotherapy can or cannot be harmful, it is hardly surprising that negative outcome has not been explored within a total context which takes into account the many complexities involved (p. 4).

Understandably, researchers, theorists, and clinicians concerned about protecting their professional reputations would be likely to avoid such a controversial and ill-defined topic (Barbrack).
Emphasis on the effectiveness of psychotherapy.

Most likely as a result of Eysenck's (1952) assertions regarding the ineffectiveness of psychotherapy, since the 1950's psychotherapy researchers have largely focused on demonstrating the effectiveness and efficacy of psychotherapy. Eysenck’s assertions, and the climate created by these statements, likely thwarted research into the nonresponse and negative response phenomenon (Barbrack, 1985). The need to prove the general effectiveness of psychotherapy both overshadowed the need for research into treatment nonresponse and negative response and also created an atmosphere in which it would be highly undesirable to draw any attention to the small percentage of patients who ultimately failed to derive any benefit from psychotherapy treatment (Barbrack). Unfortunately, despite the accumulation of a substantial amount of evidence plainly demonstrating the overall effectiveness of psychotherapy (previously described in this manuscript), researchers have been slow to shift their attention to the small population of patients experiencing either treatment nonresponse or negative response. This is a regrettable state of affairs, given that such research could only lead to improved treatments applicable to broader patient populations (Mohr, 1995).
Protection of institutions and therapists providing psychotherapy.

Undoubtedly, researchers interested in the treatment nonresponse and negative response phenomenon have hesitated to follow through with such research out of concern for the reputation of the institutions and therapists involved in the psychotherapy treatment research (Bergin, 1980; Mays & Franks, 1985a). The assertion that specific therapists and/or institutions are involved in offering psychotherapy treatment that is at best ineffective, and at worst damaging to patients, is a very serious allegation (Bergin; Mays & Franks). As noted by Bergin,

...research interest [in the “deterioration effect”]... has increased but implementation has been constricted by fear of exposing persons or institutions. When a research team finds deterioration, it may be difficult to publish because of possible negative reflections upon the clinic or hospital within which the researchers operate. Delicate political factors come into play. Also, therapists who have higher than normal rates of deteriorated cases can often be identified by the researchers, which causes difficult interpersonal problems and, sometimes, overt personnel issues (p. 97).

Quite understandably, researchers have been hesitant to place themselves, their research grants, the institutions in which they are employed, and/or their colleagues in jeopardy by drawing attention to any negative, or ineffective, aspects of psychotherapy treatment in programs under study.
Selective publication processes.

It has been widely recognized within the research psychology field that certain studies, including those finding evidence in support of the null hypothesis and those focusing on negative treatment outcomes, are less likely to be published in professional psychological journals (Barbrack, 1985; Landman & Dawes, 1982; Shapiro & Shapiro, 1982a; Wampold, Davis, & Good, 1992). Barbrack astutely pointed out that little research has been conducted into the process by which editors of professional psychological journals select articles and studies for publication. Citing several relevant studies (Atkinson, Furlong, & Wampold, 1982; Mahoney, 1977), Barbrack argued that the existing empirical evidence indicates significant biases in the selection of articles and studies for publication:

...there is considerable reason to doubt the contention that published reports are sufficiently representative of all behavioral [and other psychology] research and some reason to question the comprehensive accuracy of what actually is published in the behavioral [and other psychology] literature. Moreover, even if one were to accept the veracity and representativeness of such published reports, the issue of whether and to what extent negative outcome occurs in conjunction with the administration of behavioral [and other psychotherapy] treatments in actual clinical settings [versus controlled research settings] is unknown (p. 103).
Given the evident biases of professional journal editors, it is unlikely that research either addressing or demonstrating treatment nonresponse and negative response will be published.

Along the same lines, Barbrack (1985) noted that researchers attempting to advance their own careers are more likely to submit research with positive outcomes to journal editors for publishing.

While the behavior of some researchers may have been shaped directly by having manuscripts accepted or rejected based upon whether they supported the effectiveness of behavioral [and other psychotherapy] treatments, a more far-reaching effect may have been accomplished as a result of researchers observing or otherwise discerning implicit rules that pervasively govern the reinforcers sought (e.g., published manuscripts are positively associated with promotion and tenure in academic settings) (p. 79-80).

Indeed, almost all of the researchers who have published the few research articles addressing the treatment nonresponse and negative response phenomenon have been well-established, prominent researchers (e.g., Barlow, Bergin, Beutler, Bruch, Foa, Franks, Mays, and Strupp) whose standing within both the academic and research communities would not likely be placed in jeopardy by the publication of such research.

Regardless of whether the paucity of research on treatment nonresponse and negative response stems from editorial practices or avoidance of "unpublishable" and "risky" research topics by researchers, it is obvious that investigation into the
nonresponse and negative response phenomenon is vitally important to advancing overall knowledge about treatment outcome within the field. Publication of the results of such research is critical to both informing the clinical practices of psychologists and expanding treatment packages to be maximally effective and to address the needs of nonresponders and negative responders.

Failure to incorporate nonresponse and negative response into theoretical models.

Typically, neither psychotherapy theory nor psychotherapy research factors in the possibility of treatment nonresponse and negative response (Barbrack, 1985; Kazdin, 1985). With regard to psychotherapy theory, most schools of thought do not mention, provide explanations for, or otherwise consider the possibility of treatment nonresponse and negative response (Barbrack). As noted by Barbrack, "If one's conceptual scheme of things does not allow for the occurrence of an event, it is unlikely that such an event will be noticed and dealt with" (p. 84).

Along the same lines, even experienced researchers typically do not employ the requisite psychotherapy research methods necessary for the detection of treatment nonresponse and negative response (Kazdin, 1985). Thus, most, if not all, psychotherapy research has a "floor effect" in which "scales employing zero as an anchor point" prevent participants from obtaining a "score... lower than zero" (Barbrack, 1985, p. 89). As a result, in many cases a diminution in an existing
behavior, state, or trait cannot be measured (e.g. in a study of assertiveness training, if a subject initially scores zero on a scale of assertive behaviors, and then becomes even less assertive during the course of the study – perhaps due to becoming depressed and emotionally withdrawn – the scale with an endpoint of zero will not be able to reflect this occurrence, and thus will not capture the patient's deterioration during the treatment process) (Barbrack). Furthermore, improvement in one aspect of a subject's cognitive, affective, or behavioral functioning as a result of treatment may be accompanied by a decline in functioning in another area (Barbrack; Kazdin; Strupp & Hadley, 1977; Strupp et al., 1977). Failure to employ assessment measures that capture multiple aspects of functioning (i.e., cognitive, affective, behavioral, global psychological status) from a variety of perspectives may result in overlooking such an occurrence (Barbrack; Kazdin; Strupp & Hadley; Strupp et al.). Moreover, many researchers do not conduct follow-up assessments to gauge the effectiveness of a given treatment intervention over time (Barbrack; Kazdin). As noted by Barbrack, "[w]hen rigorous follow-up is conducted, some studies demonstrate maintenance of treatment over time... while others... provide indications of treatment effect 'wash out' and even the emergence of negative outcome" (p. 89). Until theorists and researchers begin to incorporate the concepts of nonresponse and negative response into their work, the treatment nonresponse and negative response phenomenon will continue to occur (Barbrack).
Difficulties in conducting research with small participant samples.

Although it is surely important to understand treatment nonresponse and negative response, the fact that such a small group of research participants experience either of these outcomes complicates the empirical investigation of the phenomena (Kazdin, 1985; Mays & Franks, 1985a). Deliberate research into the nonresponse and negative response phenomenon is further hindered by the necessary ethical and legal constraints preventing researchers from investigating treatment nonresponse and negative response via the methods of a true experiment (Bergin, 1980; Mays & Franks). Thus,

...since patients who decline in functioning during therapy are a small subgroup of the patient population, it is hard to accumulate a sample size sufficient to permit a meaningful examination of contributing factors. Furthermore, for obvious reasons, it is not ethical to manipulate negative outcome experimentally. Thus, the major direct avenues to exploration of the contributing factor are blocked (Mays & Franks, p. 4).

These constraints, coupled with the numerous additional difficulties noted, create a powerful disincentive for researchers considering investigation into the treatment nonresponse and negative response phenomenon.
Lack of consensual definitions of treatment nonresponse and negative response.

A problem that has been alluded to throughout this manuscript, the failure to arrive at consensual terms for treatment nonresponse and negative response, much less uniform definitions for each, has plagued the scant research and anecdotal literature addressing the phenomenon (Mays & Franks, 1985a; 1985b). The need for appropriate, generally agreed-upon terms, and clear, consensual definitions that are free from causal language is obvious (Adelman et al., 1998; Barbrack, 1985; Kazdin, 1985; Lambert et al., 1986; Mays & Franks, 1985a, 1985c; Strupp & Hadley, 1977; Strupp et al., 1977; Vaughan & Beech, 1985). Treatment nonresponse and negative response investigations, carelessly conducted, have the potential to do considerable damage to all involved (Barbrack). The professional standing of the researchers, clinicians, and research/treatment institutions involved is at stake, as is the reputation of the field of clinical psychology in general (Barbrack). Given that treatment nonresponse and negative response are not necessarily "therapy-induced" or "therapist-induced" (Mays & Franks, 1985a, p. 9), neutral terms and definitions must be generated in order to promote responsible research that is aimed at clarifying the factors involved in both phenomena.

In summary, there are numerous explanations for the paucity of literature addressing the important topic of treatment nonresponse and negative response. Given the potential pitfalls involved in investigating treatment nonresponse and negative response, including the possibility of being accused of tarnishing both the reputation of
the research institution supporting such research and the field of clinical psychology as a whole, it is not surprising that so little research into this phenomenon has been conducted. Despite this, there is a clear need for empirical investigations into the treatment nonresponse and negative response phenomenon. While anecdotal accounts are valuable for developing theories of treatment nonresponse and negative response, and for identifying the potential factors that contribute to the phenomenon, empirical research is the only means by which nonresponse and negative response can reliably be clarified. Empirical research is the only process that will allow for (1) reliable documentation of the nature, prevalence, and consequences both within clinical research and naturalistic/field settings (Mohr, 1995; Mohr et al., 1990); (2) the gathering of evidence either supporting or disproving the theories about the phenomenon (Mohr; Mohr et al.); (3) the identification and confirmation of relevant factors contributing to, and prevalent in, the phenomenon (Mohr; Mohr et al.); and (4) ultimately, the development and testing of effective global and/or specific treatment interventions applicable to treatment nonresponse and negative response situations (Mohr).
Collectively, research evidence demonstrates that, for the vast majority of individuals who seek treatment for a wide array of emotional and behavioral difficulties, psychotherapy is effective. For a few discrete disorders, specific forms of psychotherapy have been demonstrated to be highly effective. For example, research evidence indicates that cognitive-behavioral therapy is uniquely effective in the treatment of panic disorder. In general, however, the empirical evidence clearly indicates that the various major forms of verbal and behavioral psychotherapy treatment yield similar rates of improvement among treated samples of patients. This finding has led some theorists to speculate that there are certain common factors shared by all of the major forms of psychotherapy that contribute to successful treatment outcome. Both theory and research support this evolving “common factors” theory. The four major clusters of “common factors” that have been identified, in order of their relative estimated impact on treatment outcome from greatest to least, include client factors, therapeutic relationship factors, hope/expectancy factors, and model/technique factors. Elements of each of these are believed to contribute to successful outcome in psychotherapy.
Despite the overall findings in support of the effectiveness of psychotherapy treatment, it is also clear that a small percentage of those who seek treatment do not benefit from psychotherapy. This population is comprised of two groups: those who do not benefit from treatment to any statistically significant degree but maintain their pretreatment psychological status ("nonresponders"), and those who demonstrate a statistically significant deterioration in their pretreatment psychological status following psychotherapy ("negative responders"). The potential causes of treatment nonresponse and negative response have been speculated about for decades; however, for a variety of reasons, very little research has been conducted in this area. Still, it is important to investigate the treatment nonresponse and negative response phenomenon, not only to elucidate the full range of potential psychotherapy outcomes but also to begin developing effective interventions that will provide relief for both treatment nonresponders and negative responders. In the absence of a substantial body of empirical evidence investigating the treatment nonresponse and negative response phenomenon, a logical first step is to develop a comprehensive profile of the patients who experience nonresponse or negative response in outpatient psychotherapy. This may serve as a foundation for further, more specific research into the potential causes of treatment nonresponse and negative response.
Relevant Variables in Profiling Treatment Nonresponders and Negative Responders

To select the potentially relevant variables with which to build useful profiles of treatment nonresponders and negative responders, the small body of research investigating the nonresponse and negative response phenomenon, in combination with the vast body of research regarding the major "common factors" contributing to successful treatment outcome (reviewed earlier in this manuscript), must be considered. While the "common factors" literature points to the factors that are likely to lead to successful treatment outcome, the literature regarding treatment nonresponse and negative response indicates that the absence of these success factors is not sufficient to describe treatment nonresponse and negative response (Mohr et al., 1990). In other words, reversing, or describing the opposite of those factors leading to treatment success does not necessarily identify the factors involved in nonresponse and negative response (Beutler & Crago, 1983; Marziali, 1984; Mays & Franks, 1985a; Mohr, 1995; Mohr et al.). As Mohr et al. explain:

...research in this area [treatment nonresponse and negative response] is represented by the almost universal use of linear analytic methods. These methods implicitly assume that deteriorated and remitted patients represent opposite ends of the same continuum. Thus, if high levels of a given predictor variable are related to positive changes in patient function, low levels of the variable are assumed to be related to negative outcome. This assumption is both rarely tested and of dubious accuracy. In fact, statistically, negative
changers defy the pull of regression toward the mean, and this variation from expectation may indicate that they represent a different population from those who change in a positive direction... (p. 622).

Thus, while it may, in some respects, seem counterintuitive not to simply look at the converse of treatment success factors in the investigation of treatment nonresponse and negative response, it is important to consider the unique factors that may contribute to the nonresponse and negative response phenomenon by merging the findings regarding both the common factors in treatment success and the relevant factors in treatment nonresponse and negative response.

As noted in the “common factors” section of this manuscript, this combined literature broadly points to several areas for investigation, including “client factors,” “relationship factors,” and “therapist factors.” Some theorists and researchers have taken this model one step further, suggesting an interactional model through which these factors influence treatment outcome. Specifically, every client brings a variety of pretreatment characteristics to the psychotherapy encounter (Bergin, 1997; Gelso & Carter, 1985; Horvath & Luborsky, 1993; Mallinckrodt, 1991; Safran, Crocker, McMain, & Murray, 1990; Strupp, 1974). These individual cognitive, affective, and interpersonal factors (Bickman, 1999; Brehm & Smith, 1986; Gelso & Carter; Horvath & Luborsky; Kokotovic & Tracey, 1990; Mallinckrodt; Marziali & Alexander, 1991; Moras & Strupp, 1982; Strupp; Zuroff et al., 2000) are likely to impact the client’s capacity to forge a strong therapeutic alliance with the therapist (Brehm & Smith; Horvath & Luborsky; Marziali & Alexander; Safran et al., 1990; Zuroff). In addition,
these characteristics could interact with the therapist's individual characteristics "to produce particularly propitious or poor [therapeutic] alliance patterns" (Horvath & Luborsky, p. 566). Thus, the individual traits clients and therapists bring to the psychotherapy encounter may, independently and in interaction, impact the quality of the therapeutic alliance that is formed (Bickman; Brehm & Smith; Gaston, Marmar, Gallagher & Thompson, 1989; Horvath & Luborsky; Kivilihan, 1990; Kolden et al., 1994; Mallinckrodt & Nelson, 1991; Marziali & Alexander; Safran et al.), which may directly impact treatment outcome, given that the therapeutic alliance has been demonstrated to be highly predictive of psychotherapy outcome (Alexander & Luborsky, 1986; Bachelor, 1988, 1991, 1995; Colson, Allen et al., 1985; Colson et al., 1991; Cooley & LaJoy, 1980; Frieswyk et al., 1986; Gelso & Carter; Gomes-Schwartz, 1978; Henry, Schacht, & Strupp, 1986; Horowitz, Marmar, Weiss, DeWitt, & Rosenbaum, 1984; Horvath & Symonds, 1991; Kolden et al.; Lambert, 1989; Luborsky, Crits-Cristoph, Alexander, Margolis, & Cohen, 1983; Luborsky, McLellan, Woody, O'Brien, & Auerbach, 1985; Luborsky et al., 1980; Mallinckrodt, 1993; Marziali, 1984; Marziali & Alexander; Miller, Taylor, & West, 1980; Morgan, Luborsky, Crits-Cristoph, Curtis, & Solomon, 1982; Orlinsky et al., 1994; Orlinsky & Howard, 1986; Safran et al.; Salvio, Beutler, Wood, & Engle, 1992; Stiles et al., 1998; Svensson & Hansson, 1991).

For example, in an investigation of the relationship between perfectionism, self-criticism, and treatment outcome in brief outpatient psychotherapy for depression, Zuroff et al. (2000) found that higher levels of perfectionism and self-criticism were
associated with lower rates of improvement in depressive symptomatology at the conclusion of treatment. This relationship was mediated by the therapeutic relationship. That is, the more intensely perfectionistic the client, the less likely the client was to develop a strong therapeutic alliance, which was statistically demonstrated to lead to less successful treatment outcome (Zuroff et al.). Thus, client pretreatment factors may impact treatment outcome indirectly by affecting the client’s ability to engage successfully in the therapeutic relationship. This may also hold true for therapists. A description of the client and therapist factors selected for investigation in the present study of treatment nonresponse and negative response follows.

Client Factors

Treatment Expectancy

As noted in the “common factors” section of this manuscript, the client’s expectation that treatment will work is a key component of successful psychotherapy treatment outcome (Asay & Lambert, 1999; Snyder et al., 1999; Truax et al., 1966; Weinberger, 1995; Weinberger & Eig, 1999). While psychotherapy researchers initially viewed such “placebo” effects as confounds to be controlled in psychotherapy effectiveness research (Kirsch, 1978, 1985; Weinberger; Weinberger & Eig), the theories of Frank and others inspired psychotherapy researchers and clinicians to
harness the beneficial effects of expectancies in psychotherapy treatment (Asay & Lambert; Frank & Frank, 1991; Goldfried & Newman, 1992; Weinberger & Eig). In recent years, theorists and researchers, inspired by the growing popularity of "common factors" concepts (Weinberger & Eig), have started to actively incorporate expectancy/hope into psychological theory and empirical research (Cantanzaro & Mearns, 1999; Fennell & Teasdale, 1987; Garfield, 1994; Gaston et al., 1989; Harris & Rosenthal, 1985; Hirt, Lynn, Payne, Krackow, & McCrea, 1999; Kirsch, 1999b; 1985; Orlinsky et al., 1994; Orlinsky & Howard, 1986; Palace, 1999; Price & Barrell, 1999; Rounsaville et al., 1988; Schoenberger, 1999; Weinberger & Eig). According to Kirsch (1999b), whose theoretical work and empirical research during the mid-1980s led to a resurgence in research interest in this area,

...research indicates... response expectancies are determinants of mood states, memory reports, fear and anxiety, sexual arousal, pain perception, asthmatic responses, drug use and abuse, depression, illness and health, and responses to psychotherapy and medical interventions. The strength of some of these effects indicates that response expectancy may be more than just another psychological variables [sic] to consider (p. 3).

Clearly, the client's expectations about treatment constitute an important factor for investigation in research into the treatment nonresponse and negative response phenomenon.
Although most major forms of psychotherapy incorporate concepts of patient expectancies into theory and research (Asay & Lambert, 1999; Hubble et al., 1999b; Kirsch, 1999b), the exact definition of expectancies and precise descriptions of the mechanisms through which they work, differs (Kirsch). In general, “[r]esponse expectancies” can be defined as “anticipations of one’s own automatic reactions to various situations and behaviors” (Kirsch, p. 4). Because these expectations “are automatic..., people need not attend to the expectancy for its effects to be seen. Nevertheless, people are able to report their beliefs and expectancies when asked to do so...” (Kirsch, p. 4). This allows expectancies and their effects to be evaluated (Kirsch). The impact of individuals’ expectancies in different situations depends upon two factors (Kirsch): “the strength of the expectancy (i.e., how confident one is that the response will occur) and the magnitude of the expected response” (Kirsch, p. 5).

According to Kirsch, the stronger the expectancy, and the smaller the anticipated impact, the more likely it is that the expectancy will come to fruition.

Empirical research based on detailed theory has demonstrated that response expectancies operate through complex cognitive (Goldman, 1999; Maddux, 1999) and neural mechanisms (Goldman). Basically, the human brain is predisposed to process external and internal stimuli rapidly, by interpreting these stimuli on the basis of preconceived notions and experience-based expectations (Goldman; Kirsch, 1999b; Maddux; Weinberger & Eig, 1999). This allows individuals to quickly detect potential threats to their physical and emotional well-being (Kirsch). However, this also creates the potential for misperception of internal and environmental stimuli (Kirsch).
Individuals are particularly prone to misinterpret internal stimuli due to the inherent ambiguity of such stimuli (Kirsch). When "stimulus expectancies alter perceptual responses," response expectancies can become "self-confirming" (Kirsch, p. 7). Thus, the impact of response expectancies on outcome in psychotherapy are empirically founded, biologically-based phenomena (Goldman; Maddux; Kirsch; Tallman & Bohart, 1999) worthy of exploration in treatment response, treatment nonresponse, and negative response.

Although response expectancies are judged to be "the most neglected of the common factors" due to the fact that expectancies are "not emphasized by any major school of psychotherapy" (Weinberger & Eig, 1999, p. 358), a substantial amount of empirical research has investigated the impact of expectancies on both human information processing (Brehm & Smith, 1986) and psychotherapy outcome (Kirsch, 1999b; Rounsaville et al., 1988; Weinberger & Eig). This research indicates that individuals' expectancies regarding treatment have a considerable impact on treatment outcome (Asay & Lambert, 1999; Beckham, 1989; Elkin, 1994; Elkin et al., 1989; Fennell & Teasdale, 1987; Frank, 1978; Gaston et al., 1989; Howard et al., 1986; Kirsch, 1978, 1985; Luborsky, 1984; Maione & Chenail, 1999; Orlinsky et al., 1994; Orlinsky & Howard, 1986; Rounsaville et al.; Shea et al., 1992; Tallman & Bohart, 1999; Weinberger & Eig). For example, individuals' positive expectations for psychotherapy effectiveness before and during treatment have been found to be associated with positive treatment outcome (Asay & Lambert; Barker et al., 1988; Beckham; Cummings et al., 1994; Fennell & Teasdale; Frank & Frank, 1991; Garfield,
1994; Gaston et al.; Howard et al., 1986; Howard, Lueger, Maling & Martinovich, 1993; Krupnick et al., 1996; Rounsaville et al.; Snyder et al., 1999; Stiles et al., 1998; Weinberger & Eig), while a patient's negative expectations at treatment outset have been found to impact negatively upon both the therapist's "performance" during treatment and the resulting overall treatment outcome (Rounsaville et al., p. 684). In addition, findings show that clients' expectancies at the end of treatment regarding maintenance of treatment gains impact the level of gains actually maintained by clients (Asay & Lambert; Bandura, 1989; Dixon, 2000; Snyder et al.; Weinberger, 1995; Weinberger & Eig). Moreover, as Weinberger and Eig point out, most major forms of psychotherapy focus on altering individuals' "explanatory style" (p. 363) and expectations regarding inter- and intrapersonal relationships, external events, and future experiences in order to effect symptom reduction and lasting psychological change. Given the central role of patients' treatment expectancy, in many forms, on psychotherapy outcome, it is highly likely that this factor plays a role in the treatment nonresponse and negative response phenomenon, making it a worthwhile factor to investigate in the present study.
Diagnosis

According to the "common factors" and treatment nonresponse and negative response literature, Axis I diagnosis is not considered to have a significant impact on treatment outcome, although a few studies have indicated that patients with obsessive traits may be predisposed to negative treatment outcome (Foa et al., 1983; Foa & Steketee, 1977; Mohr, 1995; Vaughan & Beech, 1985). Axis II diagnosis, however, has been found to be a harbinger of prolonged courses of treatment (Howard et al., 1986), treatment nonresponse, and negative response to treatment (Goldfried & Wolfe, 1996; Mohr; Mohr et al., 1990) in both empirical (Aronson & Weintraub, 1968, 1969; Colson, Allen et al., 1985; Colson et al., 1991; Colson, Lewis et al., 1985; Kernberg et al., 1972; Mohr et al.) and anecdotal literature (Stone, 1985). The hypothesized mechanism through which Axis II diagnosis may exert a negative impact on treatment outcome is further discussed in a later section addressing the interaction between the clinician's assessed severity of client impairment and the client's self-reported subjective degree of distress. The presence of an Axis II diagnosis was examined as a main factor in treatment nonresponse and negative response. Axis I diagnosis was not examined in the present study.
Severity of Impairment/Global Assessment of Functioning

Typically, clients initially presenting with severe, global impairments tend to improve following the initial assessment (Aronson & Weintraub, 1969; Beutler & Crago, 1983; Horowitz et al., 1988; Maling, Gurtman, & Howard, 1995; Mohr et al., 1990). This well-known phenomenon has been labeled “regression toward the mean” (Beutler & Crago; Horowitz et al.; Mohr et al.). However, patients exhibiting treatment nonresponse and negative response can be considered “statistical anomalies” (Beutler & Crago; Mohr et al.). These patients do not exhibit the typical tendency to move toward more normal levels of symptomatology and global functioning following the initial assessment (Beutler & Crago; Mohr et al.). In fact, these individuals demonstrate quite the opposite, either failing to change from the initial level of global functioning or actually deteriorating in global/overall functioning (Beutler & Crago; Mohr et al.).

In the present study, therefore, the role of the severity of patients’ functional impairment in several specific realms and one global domain was statistically analyzed as a potential factor in treatment outcome. Further analyses were conducted to specifically identify those individuals who demonstrated improvement following the initiation of treatment, those who showed no response to treatment and remained at the initial level of impairment, and those who deteriorated from the initial level of global functioning. In addition to investigating the role of the identified main factors within these two groups, further exploratory post-hoc analyses were planned in order to
develop a more thorough description of these clients who defy tendencies to move toward the mean (Beutler & Crago, 1983; Mohr et al., 1990).
Interpersonal Functioning

It has repeatedly been noted in the literature that individuals seeking psychotherapy often present with interpersonal problems as a focal treatment issue (Davies-Osterkamp et al., 1996; Henry & Strupp, 1994; Horowitz et al., 1988, 1993; Maling et al., 1995). For example, Maling et al. indicate that within an outpatient sample “generally representative of [individuals] who engage in outpatient psychotherapy in the United States” (p. 65), 93.3% of patients reported “at least one interpersonal problem” causing the individual “at least a ‘moderate’... level of interpersonal distress” (p. 66). Both research and theory suggest interpersonal relationships “play a vital role in the course and outcome of psychotherapy” (Davies-Osterkamp et al., p. 164). Indeed, Moras & Strupp (1982) found that “assessments of interpersonal relations [are a] better predictor” of outcome than “[p]retherapy assessments of psychological health and adaptive functioning” (p. 408). Thus, a logical assumption would be that interpersonal problems play a role in the treatment nonresponse and negative response phenomenon (Davies-Osterkamp et al.; Goldfried & Wolfe, 1996; Mohr et al., 1990).

The term “interpersonal problems” is a broad category, involving “five conceptual areas underlying social functioning” (Weissman, Sholomsakas, & John, 1981, p. 1257). These areas include: “social supports, social attachments, social competence, social status, and social role performance” (Weissman et al., 1981, p. 1257). A client’s interpersonal difficulties may be limited to only one of these areas, or
the problems may be diffuse, ranging across several or all of these areas (Gottlieb, 1983; Horowitz et al., 1993; Weissman et al.). The individual's difficulties may also range from mild to severe, may be limited in scope or may pervade an individual's relationships (Horowitz et al.; Mallinckrodt, 1991; Rounsaville et al., 1988), and may be consciously recognized by the client or may be denied (Mohr et al., 1990). Both researchers and theorists suggest that some interpersonal problems may be easier to remedy with psychotherapy than others (Davies-Osterkamp et al., 1996; Horowitz et al., 1988, 1993; Kernberg et al., 1972; Maling, et al., 1995; Moras & Strupp, 1982; Rounsaville et al.). For example, patients with basic "social competence" difficulties often respond positively to brief, straightforward social skills training, whereas individuals with attachment problems such as intimacy difficulties tend to require more extensive treatment (Horowitz et al., 1993; Maling et al.; Mallinckrodt). Moreover, within the subclass of social attachment problems, Horowitz et al. (1993) found that individuals with "a dismissing attachment style... involving hostility and coldness," as well as a need to dominate others, tend to be "particularly difficult to treat" (p. 556) and have a greater likelihood of treatment nonresponse. Davies-Osterkamp et al., Rounsaville et al., and Strupp (1980a, 1980b, 1980c, 1980d) all reached similar conclusions. On the other hand, patients exhibiting a warm, friendly attachment style with difficulties related to being too "submissive" and relatively "exploitable" in relationships were found to readily respond to treatment (Horowitz et al., 1993, p. 553).
Interestingly, the relevant literature indicates "evidence... that interpersonal difficulties are at once an indicator that one may benefit from psychotherapy and an indicator of higher risk of deterioration" (Mohr, 1995, p. 12). For example, in a study of treatment response among depressed outpatients, Mohr et al. (1990) found

patients who improved [in treatment] showed moderately high levels of difficulty with intimacy, but not as high as those who deteriorated.

Nonresponders showed lower levels of difficulty with intimacy than either positive or negative responders. The study also found that nonresponders and negative responders are at opposite ends of the continuum of interpersonal functioning, which suggests that they belong to different and distinct groups (Mohr, p. 12).

Overall, the research literature suggests individuals with only moderate levels of interpersonal problems may be more likely to demonstrate treatment nonresponse. Individuals may be at greater risk for negative treatment response when they exhibit interpersonal problems spanning several categories (one or more of which are more difficult to treat), have difficulties of collectively greater intensity and pervasiveness (Horowitz et al., 1988, 1993; Kernberg et al., 1972; Maling et al., 1995; Mohr), and when they rate their interpersonal problems as being relatively less severe and less pervasive than objective measures would indicate (Davies-Osterkamp et al., 1996; Mohr et al.). This suggests patients with severe, pervasive interpersonal problems who do not have insight into the existence of these problems may be at greatest risk for negative response (Davies-Osterkamp et al.; Mohr et al.).
The potential for treatment nonresponse or negative response may come as a result of the impact the patients' interpersonal problems have on their capacity to engage in a productive therapeutic relationship (Marziali & Alexander, 1991; Moras & Strupp, 1982; Rounsaville et al., 1988; Zuroff et al., 2000). Psychotherapy is, by its very nature, an interpersonal process (Henry & Strupp, 1994; Horowitz et al., 1988, 1992; Kiesler, 1983; Kokotovic & Tracey, 1990; Luborsky, 1984; Maling et al., 1995; Mallinckrodt, 1991; Moras & Strupp; Rounsaville et al.; Strupp 1980a, 1980b, 1980c, 1980d), the therapeutic outcome of which depends heavily upon the patient's capacity to forge a strong therapeutic alliance (Mallinckrodt; Mallinckrodt & Nelson, 1991; Marziali & Alexander; Moras & Strupp; Rounsaville et al.; Strupp 1980a, 1980b, 1980c, 1980d). Empirical evidence indicates when patients' interpersonal problems directly interfere with the treatment in general (Maling et al.), or the formation of a solid therapeutic relationship specifically, positive treatment outcome may be jeopardized (Horowitz et al., 1988; Kernberg et al., 1972; Mallinckrodt; Moras & Strupp; Rounsaville et al.; Strupp 1980a, 1980b, 1980c, 1980d). Patients with little insight into their interpersonal problems may have particularly intense difficulty engaging in a therapeutic relationship (Mohr et al., 1990).

Overall, a review of the research literature strongly suggests interpersonal functioning as an important factor for investigation into the treatment nonresponse and negative response phenomenon. While interpersonal problems may be ubiquitous among psychotherapy patients, the literature indicates that the nature, severity, and pervasiveness of individuals' interpersonal problems, patients' level of insight into
these difficulties, and the impact of these problems upon the therapeutic relationship may be important factors in the treatment nonresponse and negative response phenomenon (Maling et al., 1995; Marziali & Alexander, 1991; Mohr et al., 1990; Moras & Strupp, 1982).

Interaction Between Level of Interpersonal Distress and Global Symptom Severity

As previously noted, few empirical studies have strictly focused on the treatment nonresponse and negative response phenomenon. In fact, an extensive literature review located only one such study conducted in the last decade. In this investigation, Mohr et al. (1990) studied the treatment nonresponse and negative response phenomenon in a sample of adult outpatients suffering from major depressive disorder. Mohr et al. grounded their research in three elements: empirical findings indicating that “levels of manifest anxiety (psychic distress) are often low... among negative responders;” psychodynamic theories positing that “some degree of psychic distress is a necessary condition for [client] progress;” and “relationship theories” “suggest[ing] [that] distress arising from interpersonal relationships may provide motivation for change” (p. 622). These factors led Mohr et al. to consider the impact of clients’ self-reported global symptom severity (“psychic distress”), clients’ self-reported levels of “distress arising from interpersonal relationships” (“interpersonal distress”), and the interaction between these two variables, on treatment nonresponse and negative response (p. 622).
Several significant and informative findings resulted (Mohr et al., 1990). First, the results indicated that subjective levels of global symptom severity, or “psychic distress[,] seem[ed] to be implicated both in activating the patient and in determining whether the change [that resulted] would be in a positive or negative direction” (Mohr et al., p. 627). Specifically, the researchers found “[h]igh psychic distress [global symptom severity] was linearly related to the amount of improvement, the latter variable ranging from negative change to positive change” (p. 627). Second, statistical analyses indicated that subjective level of interpersonal distress was “relatively high both among those who improved and among those who got worse” in the study (Mohr et al., p. 627). Thus, the findings suggest “the awareness of interpersonal distress seem[ed] only to be implicated in activating the patient to make some change, irrespective of the direction of that change” (Mohr et al., p. 627). Third, analysis of the interaction between subjective levels of global symptom severity and interpersonal distress indicated those who improved in treatment experienced the highest degree of global symptom severity concomitant with a high level of interpersonal distress, while nonresponders reported moderate symptom severity and the lowest level of interpersonal distress, and negative responders reported the lowest level of symptom
severity along with highest level of interpersonal distress (Mohr et al.). In interpreting the findings, Mohr et al. indicated:

Apparently [sic] an awareness of disturbed functioning [global symptom severity]... is important for motivating change in psychotherapy. The absence of such self-acknowledged dysfunction may even portend treatment-related deterioration. On the other hand... [i]nterpersonal distress... was an activator of change in either a positive or negative direction. [...] The patient who changes positively may also be one who is aware of sources of distress besides those that exist in interpersonal relationships. Perhaps positive therapeutic change requires both an awareness of one’s own [distress]... and the awareness that not all of this distress can be attributed to others (p. 627).

In specific regard to nonresponders and negative responders, Mohr et al. stated:

While distressed, those who do most poorly in psychotherapy seem to have little sense of personal dysfunction, perhaps attributing it to interpersonal issues owned by others. This... is reminiscent of a personality disorder characterized by social detachment, passivity, and ego syntonic complaints... . This lack of acknowledgement of one’s own contribution to levels of distress may predispose [sic] anger, projection, and other destabilizing forces in the psychotherapy relationship, resulting in negative change. Those who change little may have neither the degree of psychic distress to direct movement nor the amount of interpersonal distress to activate themselves (p. 627).
Thus, the findings of Mohr and his colleagues (1990) provide direct support for consideration of client’s subjective levels of global symptom severity and interpersonal distress in the investigation of treatment nonresponse and negative response. In addition, the interpretation Mohr et al. provide for their findings offers additional justification for investigating Axis II diagnosis as a relevant factor in treatment nonresponse and negative response.

**Therapist Factors**

The individual psychotherapist clearly makes a substantial contribution to psychotherapy outcome (Beutler, 1997; Beutler et al., 1994; Crits-Cristoph & Mintz, 1991; Henry, Schacht, et al., 1993; Henry, Strupp, et al., 1993; Henry & Strupp, 1994; Hiatt & Hargrave, 1995; Lafferty, Beutler, & Crago, 1989; Lambert, 1989; Lambert & Okiishi, 1997; Luborsky et al., 1986; Luborsky, McLellan, Diguer, Woody, & Seligman, 1997; Luborsky et al., 1985; Luborsky et al., 1982; Lyons & Howard, 1991; Miller, 1993; Miller, Benefield, & Tonigan, 1993; Miller et al., 1980; Najavits & Strupp, 1994; Orlinsky & Howard, 1980; Piper et al., 1998; Ricks, 1974; Rounsaville et al., 1988; Strupp, 1980a, 1980b, 1980c, 1980d; Strupp & Anderson, 1997, Truax et al., 1966). Indeed, empirical evidence indicates that while some therapists are consistently highly effective (Beutler; Beutler et al.; Hiatt & Hargrave; Lafferty et al., 1989; Lambert; Lambert & Okiishi; Luborsky et al., 1986; Luborsky et al., 1997; Luborsky et al., 1982; Lyons & Howard; Miller; Najavits & Strupp; Orlinsky &
Howard), other therapists "produce consistently negative effects" (Beutler et al., p. 229) that result in patient deterioration during the psychotherapy process (Beutler; Crits-Cristoph & Mintz; Henry, Schacht, et al., 1993; Lafferty et al.; Lambert; Lambert & Okiishi; Luborsky et al., 1986; Luborsky et al., 1997; Luborsky et al., 1982; Lyons & Howard; Miller; Miller et al., 1993; Najavits & Strupp; Orlinsky & Howard; Truax et al.). In addition, research conducted by Crits-Cristoph and Mintz, Luborsky et al. (1986), and Lyons and Howard indicates that the "magnitude of [treatment] benefit is more closely associated with the identity of the therapist than with the type of psychotherapy that the therapist practices" (Beutler et al., p. 229).

Nonetheless, the specific ways in which psychotherapists influence treatment outcome remains unclear (Barrett & Wright, 1984; Beutler et al.; Hiatt & Hargrave; Najavits & Strupp; Schaffer, 1982). It is most likely that the impact of the psychotherapist on psychotherapy outcome is overdetermined (Barrett & Wright; Beutler; Beutler et al.; Cross & Sheehan, 1982; Henry, Schacht, et al., 1993; Lafferty et al.; Lambert; Lehman & Salovey, 1990; Luborsky et al., 1986; Luborsky et al., 1997; Luborsky et al., 1985; Orlinsky & Howard; Schaffer; Strupp & Anderson), a complex interplay of the therapist's personal qualities (Barrett & Wright; Bergin, 1997; Beutler; Beutler et al.; Dawes, 1994; Garfield, 1977; Henry, Schacht, et al., 1993; Lafferty et al.; Lambert; Lambert & Okiishi, 1997; Lehman & Salovey; Luborsky et al., 1986; Luborsky et al., 1997; Luborsky et al., 1985; Miller, 1993; Najavits & Strupp; Orlinsky & Howard; Ricks; Rounsaville et al.; Schaffer; Strupp & Anderson); level and quality of training, experience, and skill (Barrett & Wright; Beutler; Beutler et al.; Henry,
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Schacht, et al., 1993; Hiatt & Hargrave; Lambert; Lafferty et al.; Lambert & Okiishi, 1997; Luborsky et al., 1997; Luborsky et al., 1985; Miller; Orlinsky & Howard; Rounsaville et al.; Schaffer; Strupp & Anderson); model of psychotherapy practiced (Beutler et al.; Cross & Sheehan; Garfield; Lafferty et al.; Lehman & Salovey; Schaffer; Miller et al., 1993); and compatibility/interaction with the personal qualities of the client (Barrett & Wright; Bergin; Beutler; Beutler, et al.; Dawes; Garfield; Lambert; Lambert & Okiishi, 1995; Lehman & Salovey; Luborsky et al., 1986; Luborsky et al., 1997; Luborsky et al., 1985; Mintz et al., 1979; Najavits & Strupp; Orlinsky & Howard; Ricks; Rounsaville et al.; Strupp & Anderson). The vast literature (Barrett & Wright; Beutler; Beutler et al.; Christensen & Jacobson, 1994; Lambert et al., 1986) addressing therapist variables and their impact on psychotherapy is clearly beyond the scope of this manuscript (the interested reader is directed to Beutler, 1997 and Beutler et al., 1994 for excellent reviews of the literature), as the intended focus of the present study is the client variables involved in treatment nonresponse and negative response. Thus, only the therapist’s degree status (master’s level versus doctoral level) was considered in the present study.
In his highly controversial work strongly criticizing the modern practice of clinical psychology, research psychologist Robyn Dawes (1994) dedicated an entire chapter to the “myth of expertise” (p. 38), declaring boldly “the credentials and experience of... psychotherapists are unrelated to patient outcomes, based on well over five hundred [sic] scientific studies of psychotherapy outcome” (p. 38). Dawes does not cite the 500 studies to which he refers, making the veracity of his statement impossible to determine. Actually, the evidence regarding the impact of the psychotherapist’s degree status and experience on psychotherapy outcome is far more ambiguous than Dawes’ controversial statement suggests (Auerbach & Johnson, 1977; Barrett & Wright, 1984; Beutler, 1997; Beutler et al., 1994; Bickman, 1999; Hiatt & Hargrave, 1995; Stein & Lambert, 1995). For example, Shapiro and Shapiro (1982a) indicate that their data suggests the “paradoxical finding that inexperienced therapists obtained larger Ess [sic] than experienced therapists” (p. 22). Multiple regression analyses of the data, however, indicate that “researchers [who were] tackling ‘tougher’ target problems used more experienced therapists” (Shapiro & Shapiro, p. 22); these therapists achieved more modest treatment effects with their challenging clients. Dawes’ failure to reference the studies he refers to leaves the reader unable to ascertain whether similar confounds complicate the findings that led him to his controversial conclusion. Nevertheless, a recent thorough review of the topic led researchers to conclude, “meta-analytic reviews of psychotherapy have provided modest,
correlational data suggesting that a relationship exists between therapist training and outcome” (Stein & Lambert, 1995, p. 185; for a dissenting opinion see Christensen & Jacobson, 1994).

In general, it is difficult to determine the impact of the therapist’s degree status on psychotherapy treatment outcome because so little research focused specifically on this variable has been conducted (Bickman, 1999; Stein & Lambert, 1995). Typically, research into therapists’ “professional background” (Beutler et al., 1994, p. 248) has investigated either therapists’ relative level of experience (Auerbach & Johnson, 1977; Barrett & Wright, 1984; Beutler, 1997; Beutler et al.; Christensen & Jacobson, 1994; Najavits & Strupp, 1994; Orlinsky & Howard, 1980; Stein & Lambert) or professional versus nonprofessional status (Auerbach & Johnson; Barker et al., 1988; Beutler et al.; Christensen & Jacobson; Najavits & Strupp). Unfortunately, the definition of what constitutes an “experienced” versus an “inexperienced” psychotherapist has varied from study to study, leading to a situation in which it is difficult to aggregate research results (Auerbach & Johnson; Beutler; Beutler et al.; Durlak, 1981; Garfield, 1977; Nietzel & Fisher, 1981; Stein & Lambert). Moreover, researchers have even failed to reach a consensus regarding the definition of a “professional” versus a “nonprofessional” psychotherapist (Berman & Norton, 1985; Durlak, 1979, 1981; Garfield; Hattie et al., 1984; Nietzel & Fisher). Again, this fundamental incompatibility prevents the successful integration of results across research studies (Berman & Norton; Beutler et al.; Nietzel & Fisher).
In addition, while empirical research clearly indicates that “therapist values, skills, and behaviors change during the course of formal training... and with clinical experience” (Beutler et al., 1994, p. 248), researchers have typically focused on “three interrelated variables that are assumed to affect the skill and effectiveness with which the therapist implements therapeutic interventions – level of professional training, amount of experience, and professional discipline” (Beutler et al., p. 248) without effectively isolating each factor (Beutler et al.; Stein & Lambert, 1995). The result of this confounding of the various “professional background” variables is a vast body of literature from which few, if any, firm conclusions can be drawn (Auerbach & Johnson, 1977; Beutler, 1997; Beutler et al.; Stein & Lambert). The state of the empirical literature in this area is clearly captured by Beutler et al.:

[Professional background] variables are often confounded in research, both with each other and with the nature of the therapeutic interventions studied. [...] These confounded variables make it difficult to tease apart the effects of different aspects of professional background. As a result, research on therapist background characteristics has yielded equivocal and contradictory results. Literature reviews have suggested that there is little effect of either experience or level of training... ; others have concluded that outcomes favor experienced therapists...; and still others have argued that inexperienced and paraprofessional therapists may have advantages over professional therapists... . Unfortunately, meta-analytic reviews of this literature do not help a great deal (pp. 248-249).
These researchers conclude, "[t]he confusing results of studies on therapist professional background characteristics reflect a variety of uncontrolled variables in addition to the confounded effects of therapist age, experience, level, and type of training" (p. 250).

Although more sophisticated, longitudinal research into the multitude of therapist variables impacting treatment outcome is clearly needed in order for more definitive empirical conclusions to be reached (Beutler, 1997; Beutler et al., 1994; Stein & Lambert, 1995), there is still value to exploring the impact of the therapist’s degree status on outcome in treatment response for several reasons. First, as previously noted, little research has actually been conducted investigating the impact of psychotherapists’ degree status on outcome (Auerbach & Johnson, 1977; Beutler et al.; Stein & Lambert).

Second, although psychotherapists are exposed to numerous learning experiences over the course of their professional careers, research suggests that psychotherapists’ early/initial psychotherapy training may have the most profound and lasting impact on their professional practice (Henry, Schacht et al., 1993). In other words, even extensive training experiences subsequent to psychotherapists’ graduate training experiences may not result in any substantial shifts in the practice patterns psychotherapists establish during their initial psychotherapy training experiences (Beutler, 1997; Henry, Schacht et al.). This finding suggests it is likely that, regardless of the therapist’s years of experience, number of clients treated, or exposure to post-graduate training, the psychotherapist’s graduate training and resulting degree status may have a significant impact on treatment outcome.
Third, along the same lines, graduate students are exposed to different educational experiences in master’s level psychology programs, master’s level social work programs, and doctoral level psychology programs (Garfield, 1977; Stein & Lambert, 1995). Not only do the number and type of requisite courses in each of these programs vary, but the content and emphasis of the coursework does as well (Garfield; Mallinckrodt & Nelson, 1991; Stein & Lambert). The amount and type of practical clinical experience required for degree completion also differs (Garfield; Stein & Lambert). Given that basic practice patterns are established during psychotherapists’ graduate training experiences, as noted above, and given that these graduate training experiences may differ vastly, again, it is highly likely that degree status will have an impact on treatment outcome.

Last, doctoral and master’s level training programs vary in length, offering varying amounts of time for budding psychotherapists to develop professionally (Auerbach & Johnson, 1977; Mallinckrodt & Nelson, 1991; Stein & Lambert, 1995). As Stein and Lambert argue,

...short-term training programs probably do not allow trainees to internalize or incorporate skills sufficiently; thus, a likely advantage of sustained training (seldom studied) may be development and application of skills over a succession of training situations (e.g., clerkship, practicum, internship and postdoctoral training) (p. 183).
Therefore, it is likely that the degree of consolidation of clinical skills differs between master’s level and doctoral level psychotherapists, making exploration of the impact of psychotherapist’s degree status on psychotherapy outcome a worthwhile endeavor in the investigation of the treatment nonresponse and negative response phenomenon (Mallinckrodt & Nelson).

**Relationship Factors**

Of all of the factors thought to contribute to psychotherapy outcome, relationship factors have been the most frequently studied (Marziali & Alexander, 1991; Patterson, 1984). The large body of evidence that has amassed provides consistent and overwhelming evidence that the “strength of the [therapeutic] alliance is predictive of outcome” (Martin et al., 2000, p. 446) in psychotherapy (Alexander & Luborsky, 1986; Bachelor, 1988, 1991, 1995; Colson, Allen et al., 1985; Colson et al., 1991; Cooley & LaJoy, 1980; Frieswyk et al., 1986; Gelso & Carter, 1985; Gomes-Schwartz, 1978; Henry et al., 1986; Henry & Strupp, 1994; Horowitz et al., 1984; Horvath & Symonds, 1991; Kolden et al., 1994; Lambert, 1989; Luborsky et al., 1983, 1985, 1980; Mallinckrodt, 1993; Marziali, 1984; Marziali & Alexander, 1991; Miller et al., 1980; Morgan et al., 1982; Orlinsky et al., 1994; Orlinsky & Howard, 1986; Salvio et al., 1992; Stiles et al., 1998; Svensson & Hansson, 1991). Thus, relationship factors play a significant role in psychotherapy outcome, including treatment response, nonresponse, and negative response (Gaston et al., 1989; Henry & Strupp; Lambert,
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1992; Najavits & Strupp, 1994; Strupp, 1980a, 1980b, 1980c, 1980d; Svensson & Hanson, 1991; Truax et al., 1966; Waterhouse & Strupp, 1984). In order to thoroughly investigate the treatment nonresponse and negative response phenomenon, an exploration of the role of relationship factors must be included.

**Therapeutic Alliance**


Different researchers and theorists have defined the therapeutic alliance in a variety of different ways (Bachelor, 1991, 1995; Connors et al., 1997; Horvath & Luborsky, 1993; Martin et al.; Marziali & Alexander; Patterson; Salvio et al.). Overall, the
therapeutic alliance can be defined as the affective, collaborative, working relationship between the client and therapist focused on accomplishing mutually agreed-upon therapeutic goals and tasks through therapist-offered techniques, corrective emotional and interpersonal experiences, and the provision of a warm, supportive, nurturing, and safe environment in which client change can take place (Alexander & Luborsky; Bachelor, 1988, 1991, 1995; Bergin; Colson, Allen et al., 1985; Colson et al., 1991; Connors et al.; Frieswyk et al.; Gaston, 1990; Gelso & Carter; Henry et al.; Henry & Strupp, 1994; Horvath & Luborsky; Horvath & Symonds; Kolden et al.; Krupnick et al.; Maling et al., 1995; Mallinckrodt, 1991; Martin et al.; Marziali & Alexander; Moras & Strupp, 1982; Morgan et al.; Rounsaville et al., 1988; Safran et al.; Salvio et al.; Saunders et al., 1989; Westerman, Foote, & Winston, 1995).

Early research indicated that low levels of therapist-offered "accurate empathic understanding, genuineness, and nonpossessive warmth" (Truax et al., 1966, p. 395), as opposed to high levels of these qualities, might lead to "negative change or deterioration in personality functioning for the patient" (Truax et al., p. 395). Initially, relationship factors were only emphasized in psychodynamically oriented (Bachelor, 1995; Horvath & Luborsky; Horvath & Symonds, 1991; Mallinckrodt, 1991; Martin et al.; Marziali & Alexander; Reandeau & Wampold, 1991) and client-centered treatment (Bachelor, 1988; Horvath & Luborsky; Horvath & Symonds) approaches. However, extensive research over the past three decades has indicated that the strength of the therapeutic alliance is highly correlated with outcome across all of the major forms of psychotherapy treatment at about the same magnitude of correlation (Alexander &
Luborsky; Bachelor, 1995; Connors et al.; Eaton, Abeles, & Gutfreund, 1988; Henry & Strupp; Horvath & Greenberg, 1989; Horvath & Luborsky; Horvath & Symonds; Krupnick et al.; Marziali & Alexander; Raue & Goldfried, 1994; Rounsaville et al., 1987; Salvio et al.; Stiles et al.; Watson & Greenberg, 1994). This finding, which has been replicated many times, led Wolfe & Goldfried (1988) to declare the therapeutic relationship "the quintessential integrative variable... commonly accepted by most orientations... [and] of essential importance to the conduct of psychotherapy" (p. 449). As a result, the therapeutic alliance has come to be considered a "common" treatment factor (Kolden et al.) emphasized in most major psychotherapy approaches (Bachelor, 1995; Bickman; Connors et al.; Cooley & LaJoy; Horvath & Luborsky; Mallinckrodt, 1991; Martin et al.; Marziali & Alexander; Safran et al.). Given the evidence linking the therapeutic alliance to treatment outcome, the alliance is established as an important factor to consider in research regarding treatment nonresponse and negative response.

Although the therapeutic alliance is highly correlated with psychotherapy outcome, the magnitude of correlation has been found to vary depending on several factors. First, the strength of the correlation between the therapeutic alliance and treatment outcome has been found to fluctuate across specific studies investigating the factor (Bachelor, 1991; Horvath & Luborsky, 1993; Stiles et al., 1998). The correlation of the therapeutic alliance with outcome also differs with the use of various psychometric measures and with the specific operational definition of the relationship (Bachelor, 1991, 1995; Bergin & Lambert, 1978; Fiske, 1977; Gurman, 1977;

The strength of the correlation between the therapeutic alliance and outcome also depends upon the perspective of the individual rating the quality of the therapeutic alliance and the final treatment outcome (Bachelor, 1988, 1991, 1995; Connors et al., 1997; Cooley & LaJoy, 1980; Fiske, 1977; Gurman, 1977; Henry & Strupp, 1994; Horowitz et al., 1984; Horvath, 1994; Horvath & Luborsky, 1993; Kurtz & Grummon, 1972; Mallinckrodt, 1991; Marmar et al., 1986; Martin et al., 2000; Marziali, 1984; Marziali & Alexander, 1991; Murphy et al., 1984; Orlinsky et al., 1994; Orlinsky & Howard, 1986; Patterson, 1984; Raue & Goldfried, 1994; Stiles et al., 1998; Svensson & Hansson, 1991; Zuroff et al., 2000). In the empirical literature, the strength of the relationship and treatment outcome are typically assessed by either the client, the therapist, an independent observer of the treatment, or some combination thereof (Bachelor, 1995; Cooley & LaJoy; Horvath; Horvath & Luborsky; Martin et al.; Stiles et al.). In general, findings indicate that the client’s perspective of the therapeutic alliance is most highly correlated with treatment outcome (Bachelor, 1988, 1991, 1995; Connors et al.; Cooley & LaJoy; Gurman; Hadley & Strupp, 1977; Henry & Strupp; Horowitz et al.; Horvath; Horvath & Luborsky; Horvath & Symonds, 1991; Kolden et al., 1994; Kurtz & Grummon; Lacrosse, 1980; Martin et al.; Marziali; Marziali & Alexander; Orlinsky & Howard; Safran et al., 1990; Svensson & Hansson; Tichenor & Hill, 1989; Zuroff et al.; for contradictory findings, see Stiles et al., 1998). In fact,
Kolden et al. indicate "the positive relationship between the client's perception of the therapeutic relationship and outcome is perhaps the most consistent finding in the entire empirical literature on effective psychotherapeutic processes" (p. 85).

Correlations of independent observers' ratings with outcomes are typically slightly less than the correlations between the clients' ratings and outcomes, while therapists' ratings demonstrated the weakest correlations (Connors et al.; Horvath; Horvath & Luborsky; Horvath & Symonds; Martin et al.).

Last, the degree of correlation between the therapeutic alliance and treatment outcome has often been found to fluctuate with the "phase of treatment (early, middle, and late)" (Stiles et al., 1998, p. 791) in which the alliance is measured (Connors et al., 1997; Gomes-Schwartz, 1978; Horvath & Luborsky, 1993; Horvath & Symonds, 1991; Luborsky et al., 1983; Luborsky et al., 1985; Raue & Goldfried, 1994; Safran, 1993; Safran et al., 1990; Safran & Muran, 1996; Safran, Muran, & Samstag, 1994; Saltzman, Luetgert, Roth, Creaser & Howard, 1976; Saunders et al., 1989; Westerman et al., 1995). At present, the empirical evidence supports two primary theories with regard to the impact of the therapeutic alliance on outcome at different phases of treatment. A substantial body of evidence (Bachelor, 1991; Horvath & Luborsky; Horvath & Symonds; Mallinckrodt, 1993; Martin et al., 2000; Raue & Goldfried; Reandeau & Wampold, 1991; Safran; Safran et al., 1990; Safran & Muran; Safran et al., 1994; Saltzman et al., 1976; Salvio et al., 1992; Saunders et al.; Svensson & Hansson, 1991; Westerman et al.; Zuroff et al., 2000) suggests "outcome may be particularly well predicted by the alliance measured in early [treatment] sessions"
(Stiles et al., p. 791); "early" is defined as being between the first and fifth treatment session (Horvath & Symonds; Kiesler & Watkins, 1989; Marziali & Alexander, 1991; Salvio et al.). Other researchers (Foreman & Marmar, 1985; Henry et al., 1986; Kivilighan & Shaughnessy, 1995; Klee, Abeles, & Muller, 1990; Luborsky et al., 1983; Salvio et al.; Stiles et al.; Westerman et al.; Zuroff et al.) have found some support for the theory that "the linear growth of the alliance across sessions may be associated with treatment outcome" (Stiles et al., 791). Further research into both theories is necessary for any firm conclusions to be reached (Stiles et al.). At the present time the preponderance of evidence suggests the early therapeutic alliance is more likely to predict treatment completion and outcome than the alliance measured later in the treatment process.

In summary, a substantial body of evidence indicates the strength of the therapeutic alliance is a significant predictor of psychotherapy outcome. The most accurate predictions are achieved when a valid, reliable measure of client-reported global functioning is used as an outcome indicator and the client's perspective of alliance strength, measured early in treatment using a psychometrically valid tool, is used as a predictor. While independent observers' ratings of the therapeutic alliance are also likely to be predictive of psychotherapy outcome when an observer-rated measure of the client's global functioning is used as an outcome indicator, therapists' ratings of the alliance are not correlated highly with either therapist- or client-rated treatment outcome and should not, therefore, be relied upon for projecting treatment outcome.
Hypotheses

Clinical theory and empirical evidence clearly suggest that individual psychotherapy outpatients experience a range of treatment outcomes, including treatment response, treatment nonresponse, and negative treatment response. While the thrust of psychotherapy research has focused on understanding the factors involved in treatment response, very little is known about the factors involved in treatment nonresponse and negative response. The relative linear contribution of several selected variables to outcome is expected to predict individuals' assignment to one of three distinct treatment outcome subgroups (Tabachnik & Fidell, 1989) – treatment responders (TR), nonresponders (TNR), and negative responders (NGTR). Thus, it is anticipated that the successful categorization of individual patients to an outcome group will be achieved on the basis of patients' scores on several predictor variables (Tabachnik & Fidell).

Greater understanding of the factors involved in treatment response, nonresponse, and negative response, and the relative contributions of each factor to outcome, is critical. Elucidation of these factors would allow psychotherapists to make more accurate prognostic assessments and to tailor psychotherapy treatment interventions to individual patients in order to maximize the likelihood of treatment effectiveness and minimize the likelihood of treatment nonresponse or negative response. In addition, new treatment alternatives for nonresponders and negative responders could be developed and empirically tested. In order to begin to understand
the treatment nonresponse and negative response phenomena, the fundamental factors involved and their relative contributions to treatment outcome must be clarified. Based on the clinical theoretical and empirical literature reviewed, several relevant hypotheses have been developed.

**Hypothesis 1**

Patient membership in one of three unique treatment outcome groups, TR, TNR, and NGTR, can be predicted based on the linear combination of scores (Tabachnik & Fidell, 1989) achieved on a measure of the following variables: early client-rated therapeutic bond (TB), therapist-rated global assessment of patient functioning (GAS), therapist-rated overall patient life functioning (TLF) (a major component of which is interpersonal functioning), presence of an Axis II diagnosis (DX), client-rated symptom-severity (CS), client-rated overall life functioning (CLF) (a major component of which is interpersonal functioning), client-rated subjective well-being (SWB), client-rated subjective level of initial distress (IN_DIST), discrepancy between therapist-rated and client-rated perception of client’s general functioning (DGF), and therapist’s terminal degree status (DGS).
Anticipated direction of variable relationships

Based on the clinical and empirical literature, patients belonging to each of the specific treatment outcome groups are expected to exhibit certain characteristics (summarized in Table 1). Given the gaps in the clinical and empirical research addressing treatment nonresponse and negative treatment response, specific descriptive hypotheses will only include those variables directly addressed in the literature.

Membership in the TR group is most likely to be predicted by the following: high therapeutic bond (TB) score (indicating the strongest bond), low GAS score (indicating low therapist-rated level of global functioning), absence of an Axis II diagnosis (DX), high symptom severity scores (CS) (indicating a high level of experienced symptoms), low client-rated life functioning scores (CLF), high client-rated initial level of distress (IN_DIST), small discrepancy between client-rated general functioning and therapist-rated general functioning (DGF), and treatment by a doctoral-level psychotherapist (DGS).
Table 1

Hypothesized Direction of Variable Relationships Predicting Treatment Outcome Group Membership

<table>
<thead>
<tr>
<th>Predictor (independent variable)</th>
<th>Treatment outcome group classification (dependent variable)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Treatment responder (TR)</td>
</tr>
<tr>
<td>Client-rated early therapeutic bond (TB)</td>
<td>High</td>
</tr>
<tr>
<td>Client-rated symptom severity (CS)</td>
<td>High</td>
</tr>
<tr>
<td>Client-rated life-functioning (CLF)</td>
<td>Low</td>
</tr>
<tr>
<td>Client-reported level of initial distress (IN_DIST)</td>
<td>High</td>
</tr>
<tr>
<td>Discrepancy in therapist and client perception of client’s general functioning (DGF)</td>
<td>Low</td>
</tr>
<tr>
<td>Axis II diagnosis (therapist-rated)</td>
<td>Absent</td>
</tr>
<tr>
<td>Therapist rating of client’s global functioning (GAS)</td>
<td>Low</td>
</tr>
<tr>
<td>Therapist’s degree status (DGS)</td>
<td>Doctoral-level</td>
</tr>
</tbody>
</table>
The subsequent profile is most likely to predict assignment to the TNR outcome group: moderate therapeutic bond (TB) score, moderate therapist-rated global-assessment of functioning (GAS) score, presence of Axis II diagnosis (DX), moderate symptom severity (CS), high client-rated life functioning scores (CLF), moderate client-rated initial level of distress (IN_DIST), moderate discrepancy between client-rated general functioning and therapist-rated general functioning (DGF), and treatment by a master's level psychotherapist (DGS).

Those assigned to the NGTR outcome group are most likely to exhibit the following characteristics: low therapeutic bond (TB) score, low therapist-rated global-functioning (GAS) score, presence of an Axis II diagnosis (DX), low client-rated symptom-severity (CS), low client-rated life functioning scores (CLF), low client-rated initial level of distress (IN_DIST); high discrepancy between client-rated general functioning and therapist-rated general functioning (DGF), and treatment by a master's level psychotherapist (DGS).
Hypothesis 2

It is anticipated that the results of the discriminant function analysis conducted on the first half of the sample will not differ significantly from the results of a discriminant function analysis conducted on the second half of the sample. Through this process of replication, it is anticipated that further support for the hypotheses regarding the salient factors in treatment outcome will be garnered.
CHAPTER 2 -- METHODOLOGY

Participants

Description of Patients

Data analyses were conducted on archival data, collected between October 1, 1991, and June 23, 1999, in a variety of private outpatient psychotherapy treatment settings across the United States as part of the insurance utilization review requirements of a managed behavioral healthcare company. An initial sample of 900 cases was selected from an original data set of 23,500 records (please refer to Appendix 1 for a complete description of the case-selection process and the rationale for case exclusion). The 900 cases were comprised of the individual psychotherapy treatment episodes of 789 different outpatients who sought treatment from a single therapist, did not require partial- or complete inpatient hospitalization during their treatment, participated in at least one psychotherapy session per month, and who completed at least three assessment questionnaires. Of these participants, 91 (10.1%) sought a second episode of treatment, 18 (2%) sought a third episode of treatment, and 2 participants (.2%) sought a fourth episode of treatment (as a condition of inclusion in the study, consecutive treatment episodes were required to be separated by a period of at least six months' time, please refer to Appendix 1 for details). The single- and multiple-treatment episodes of the 789 total participants yielded the 900 total cases included within the present study. Participants in the sample reported with a wide
variety of presenting problems; all patients received at least one Axis I diagnosis (requisite for insurance reimbursement), and 105 participants (11.7%) were given at least one Axis II diagnosis. In the total sample of 900 cases, the mean and modal number of sessions completed was 12. Overall, the number of sessions completed ranged from 3 to 60 sessions of at least 50-minute duration.

Demographic data was missing (assumed to have been lost in the transfer of data from the donating managed care company to the researcher) for 608 cases within the total research sample of 900 cases; this prevented a truly meaningful description of the demographic characteristics of the 789 individual participants selected for the study. The implications of the limited demographic information available are discussed in a later, relevant section of this manuscript. The demographic data available for 292 of the 900 cases are described in Table 2. It is not possible to determine the degree to which this demographic information is representative of the demographic characteristics of the overall sample. Although the demographic data does not appear to have been lost in a manner that would bias the sample (i.e., data loss appears to have occurred randomly), it is not possible to verify this impression via statistical means.
### Table 2

#### Demographic Characteristics of the Total Research Sample and Two Randomly-Assigned Subsamples

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Total sample (n = 900)</th>
<th>Sample 1 (n = 450)</th>
<th>Sample 2 (n = 450)</th>
<th>( \chi^2 ) or F, as appropriate</th>
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</thead>
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<td>n missing</td>
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<td>SD</td>
</tr>
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<td>658</td>
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<td>Not available</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
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<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Female</td>
<td>211</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Ethnicity</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
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<td>--</td>
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<td>African-American</td>
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<td>--</td>
<td>--</td>
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<tr>
<td>Latino</td>
<td>8</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Other</td>
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</tbody>
</table>

\*p < .05

(Table 2 continues)
### Profile of Responders, Nonresponders, and Negative Responders

#### (Table 2, continued)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Total sample (n = 900)</th>
<th>Sample 1 (n = 450)</th>
<th>Sample 2 (n = 450)</th>
<th>df</th>
<th>$X^2$ or F, as appropriate</th>
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</thead>
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<td>M</td>
<td>SD</td>
<td>n valid</td>
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<td>Employment Status</td>
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<td></td>
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<tr>
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<td>--</td>
<td>--</td>
<td>28</td>
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<tr>
<td>Part-time</td>
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<td>Education</td>
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<td>--</td>
<td>4</td>
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<td>--</td>
<td>--</td>
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<td>--</td>
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<td>College graduate</td>
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<td>--</td>
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<td>25</td>
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</table>

*p < .05

(Table 2 continues)
Profile of Responders, Nonresponders, and Negative Responders

(Table 2, continued)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Total sample (n = 900)</th>
<th>Sample 1 (n = 450)</th>
<th>Sample 2 (n = 450)</th>
<th>df</th>
<th>X^2 or F, as appropriate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N valid    n missing  M  SD</td>
<td>n valid    n missing  M  SD</td>
<td>n valid    n missing  M  SD</td>
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<td></td>
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<tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>Completed graduate school</td>
<td>48  --  --  --</td>
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<td>33  --  --  --</td>
<td>38  --  --  --</td>
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<td></td>
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<td>70  --  --  --</td>
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<td>14  --  --  --</td>
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<tr>
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<td>10  --  --  --</td>
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<td>1  --  --  --</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05
Examination of the data reveals that few differences exist among the samples, given the available demographic data. The two exceptions are the significant differences among samples with regard to employment status and ethnicity. The tests do not definitively indicate which specific employment status, or ethnic background, differs significantly from the other classifications. A closer examination of the data regarding employment status does suggest that the difference occurred within the part-time status group, as there are fewer individuals of this employment status. This is not surprising, given that the data was collected from a population of individuals carrying health insurance, the majority of whom are employed (or are dependents of employed individuals).

Significant differences also occurred among the samples with regard to ethnicity. The data indicate that very few ethnic minorities comprise the sample. This may be explained by literature suggesting that individuals seeking psychotherapy tend to prefer working with psychotherapists of a similar ethnic background (Coleman, Wampold, & Casali, 1995; Sue, Fujino, Hu, Takeuchi, & Zane, 1991), yet insufficient numbers of ethnically diverse psychotherapists are presently available to minorities (Bernal & Castro, 1994). There is no formal data available to describe the ethnic background of the pool of psychotherapists contracted by Integra, Inc. to provide services. Nonetheless, during the author’s employment with the company, recruitment of ethnic minority psychotherapists was an ongoing goal of the provider relations department, due to high client demand and low relative numbers of ethnic minority psychotherapists.
In order to compensate for the unanticipated loss of 68% of the demographic data describing the research sample \( (n = 900) \) drawn from the original sample \( (N = 23,500) \) for the study at hand, the demographic data for a sample of 1,938 cases, selected from the same original database \( (N = 23,500) \) for use in a previous treatment outcome research project (B. Briscoe, personal communication, January 6, 2000), is described in Table 3. While it is not possible to determine the precision of the match between the demographic characteristics of this sample of 1,938 patients and the 900 patients selected for inclusion in the present study, each sample was drawn from the same original sample of 23,500 cases. The provision of the available descriptive data is offered with the intention of providing a general sense of the demographic attributes of the population under investigation.
Table 3

Demographic Characteristics of a Participant Sample (n = 1,938) Previously Drawn from the Same Original Population (N = 23,500)

<table>
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<tr>
<th>Characteristic</th>
<th>n</th>
<th>%</th>
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<tbody>
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(Table 3 continues)
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Source of participant data

All 900 participants included in the study had obtained psychotherapy treatment through various managed care programs administered by Integra, Inc. in King of Prussia, Pennsylvania. The data was gathered over the course of each participant's treatment as part of standard case management procedures at Integra, Inc., using the patient- and therapist-completed Compass questionnaire (described in detail in an upcoming section of this text). Additional information was obtained from a database of comprehensive summaries of telephonic utilization-review discussions between master's level "case management" clinicians and treating psychotherapists. Prior to the initiation of treatment, all participants signed informed consent documents explaining that data gathered might be used for research purposes following, the removal of all personal identification.

Description of Participating Psychotherapists

Within the original sample of 23,500 cases, 493 identifiable psychotherapists, of whom 326 (66.1%) were female and 147 (29.8%) were male (the gender of 20 psychotherapists could not be determined as a result of having a gender-neutral first name), provided treatment to the participants. All were contracted participants in a national panel of providers for Integra, Inc. working in private solo or group practices. As part of the requirements for participation in the provider panel, all of the
psychotherapists providing treatment were licensed clinicians with at least three years of clinical experience and current malpractice insurance coverage. Within the total participant sample of 900 patients, 281 (31.2%) received care from a doctoral-level psychologist (Psy.D., Ph.D., or Ed.D.), 486 (54%) were treated by a master’s level social worker (MSW, CSW, ACSW, LCSW), 110 (12.2%) received therapy from a master’s level psychologist (MA, MS, M.Ed.), 8 clients (.9%) were treated by a master’s level marriage and family therapist (LMFT), 4 (.4%) were treated by psychiatrists (MD), 6 (.7%) were treated by other mental health professionals, including registered nurses (RN) and licensed counselors (LPCC, LMHC), and for 5 (.5%) patients the degree status of the provider was unknown. Prior to receiving patient referrals, all providers received instruction in the case management/utilization review process, and all were trained in the administration of the measure used (Compass) both verbally (via brief training by telephone upon admission into the provider network) and via a manual describing theoretical and empirical underpinnings of the measure and rules for administration.
Measures

Assessment of Global Functioning

The Compass (Howard, Brill, Lueger, O’Mahoney & Grissom, 1995), a 133-item measure requiring approximately 20 minutes to complete on the first administration and 10 minutes to complete with subsequent administrations (Grissom, Howard, Malcolm & Brill, 1993), was designed as a comprehensive means of assessing outpatient treatment progress and outcome in a managed care setting (Howard et al., 1995; Leon et al., 1999; Lutz et al., 1999). In addition to gathering patient demographic information and treatment history, the Compass measures the patient’s self-reported functioning via several subscales, including the Subjective Well-Being (SWB), Current Symptoms (CS), and Current Life Functioning (CLF) subscales. Each of these will be further detailed in the relevant upcoming sections. Results of these subscales were used to generate the Mental Health Index (MHI), a T score (M=50, SD=10) that serves as a measure of global functioning based on the client’s self-report (Howard et al.; Leon et al.; Lutz et al.). The Compass MHI, which was normed on a national sample of outpatients of Integra, Inc. and a sample of outpatients seeking treatment at a large, midwestern university mental health clinic, has a demonstrated reliability of .82 (Howard et al.; Leon et al.; Lutz et al.; Sperry, Brill, Howard, & Grissom, 1996) and an internal consistency of .87 (Howard et al.; Leon et al.; Lutz et al.; Sperry et al., 1996). The higher the MHI score, the higher the patient’s assessed
global level of functioning (Howard et al.; Leon et al.). Psychotherapy patients have been found to have significantly lower MHI scores than “nonpatients” (Lutz et al., p. 572); specifically, “scores below 60 are more representative of a patient population than a nonpopulation” and “would be considered outside the ‘normal range’” (Lutz et al., p. 572; Sperry et al.).

The Compass also provides a therapist-rated score of the client’s present global functioning called the Clinical Assessment Index (CAI) (Howard et al., 1995). Similar to the MHI, the CAI is a T score with a mean of 50 and standard deviation of 10 (Sperry et al., 1996). It has a demonstrated internal consistency of .84 and test-retest reliability of .77 (Sperry et al.). As with the MHI, higher scores on the CAI reflect higher levels of global patient functioning (Howard et al.; Leon et al., 1999). The CAI is a composite score of several clinician ratings (Sperry et al.). First, the clinician provides an overall rating of the “patient’s lowest level of current functioning” (Sperry et al., p. 82) on the Global Assessment Scale (GAS), a rating scale modeled after the GAF used on Axis V in the American Psychiatric Association’s Diagnostic and Statistical Manual of Mental Disorders (Sperry et al.). The scale ranges from “0” (the lowest possible level of functioning) to “100” (the highest possible level of functioning), and is demarcated at 10-point intervals with a behavioral descriptor of patient functioning at each interval (Sperry et al.). In eight independent studies of the GAS, test-retest reliabilities ranged from .66 to .92 (Sperry et al.). Second, the clinician’s rating of the client’s subjective well-being, in terms of the amount of emotional distress he or she is enduring and his or her “psychological adjustment”
Profile of Responders, Nonresponders, and Negative Responders

(Sperry et al., p. 82) is factored into the CAI. Third, the clinician’s ratings of client functioning across several domains (intimate relationships, social relationships, family relationships, work functioning, health/grooming, and self-management), each addressed by a separate subscale, are summed and incorporated into the CAI (Sperry et al.). According to Sperry et al., “[t]he intercorrelations of ratings of the six domains ranged from .36 to .67” (p. 83). In aggregate, ratings on the six subscales have an internal consistency of .86 and test-retest correlation of .77 (Sperry et al.). The “[c]orrected item-total correlation ranged from .55 to .66,” which “indicated the presence of an overall dimension of functioning, but also indicated that there was meaningful content heterogeneity across the domains” (Sperry et al., pp. 83-84). The sum of the subscales also has a correlation of .74 with the GAS; the correlations of individual scales with the GAS “range[d] from .47 to .67” (Sperry et al., p. 84). Each of the clinical subscales will be described in the relevant upcoming sections.

Given that the client and the therapist approach the assessment of the client’s global functioning from two unique perspectives, it was possible that the MHI score and the CAI score would differ (G. R. Grissom, personal communication, February 6, 2001). In fact, the MHI and CAI scales correlate at a level of approximately .5, indicating the existence of a considerable shared variance between two subscales that measure the unique perspective of each participant in the therapeutic dyad (G. R. Grissom, personal communication, February 6, 2001). The presence of a difference in client- and therapist-rated global functioning, and the degree of the difference between the two viewpoints, may have important implications for treatment outcome (G. R.)
Grissom, personal communication, February 6, 2001). Specifically, such a discrepancy indicates the client and therapist view the client’s global functioning differently to some degree (G. R. Grissom, personal communication, February 6, 2001). Research on the therapeutic bond (reviewed earlier in this manuscript) indicates agreement between the therapist and client on the tasks and goals of treatment is key to positive treatment outcome; this may be influenced by differences in the therapist’s and client’s view of the client’s overall functioning.

The difference in the MHI and CAI scores could not be included as a variable in the present study due to the multicollinearity and independence of error confounds this would introduce (Z. Martinovich, personal communication, October, 2001). In order to capture, albeit on a much smaller scale, the potential difference in the patient’s and the therapist’s view of the patient’s general functioning at the time of Compass completion, a comparison of the difference in the patient’s and therapist’s response to a paired question regarding the patient’s general functioning was made. Specifically, the client’s response to the question, “At the present time, how well do you feel that you are getting along emotionally and psychologically?” and the therapist’s response to the question, “How well is your client getting along, emotionally and psychologically?,” both rated on a 6-point Likert scale ranging from “1. Quite poorly” to “6. Very Well,” was entered into a difference equation (therapist response - client response). A constant of 7 was then added to the result in order to place the resulting values on a positive scale. The resulting variable capturing the difference in perceived general patient functioning was labeled “DGF.” In addition, a “dummy variable” capturing the
direction of perceived difference in general functioning (i.e., therapist holds higher opinion of patient general functioning versus patient holds higher opinion of his or her general functioning) was entered so that the results of the difference equation could be meaningfully interpreted.

Assessment of Interpersonal Functioning

The client’s interpersonal functioning was assessed using the client’s subjective rating and the clinician’s assessment in this domain. The client’s subjective rating was derived from the Current Life Functioning (CLF) scale of the Compass, which assesses the client’s level of functioning in six realms: social, family, intimacy, work, health, and self-management (Sperry et al., 1996). According to Sperry et al., “[t]he intent of this scale is to assess the extent of disability caused by the patient’s emotional and psychological condition” (p. 79); the scale was developed via factor analyses of existing disability-assessment tools. The CLF subscale has an overall internal consistency of .93 and reliability of .76 (Sperry et al.). It renders a T score with a mean of 50 and standard deviation of 10 (Sperry et al.). As with the global scales, scores of 60 and below differentiate the patient population from the nonpatient population (Sperry et al.). The relevant domains of the CLF subscale assessing interpersonal functioning include the following: Social Relationships (internal consistency .84, reliability .68), Family Functioning (internal consistency .77, reliability .42), and Intimate Relationships (internal consistency .71, reliability .49) (Sperry et al).
The clinician’s assessment of the patient’s life functioning was also evaluated (TLF). The clinician’s rating was derived from the CAI subscales, by calculating the average therapist-rated subscale score across the same six domains of functioning measured by the CLF subscales (social, family, intimacy, work, health/grooming, and self-management) (Sperry et al., 1996). The average of clinician-provided scores on all six life functioning subscales (TLF) was used to predict the subject’s treatment outcome group classification.

**Diagnosis**

The Compass administration procedures require the psychotherapist to register a primary Axis I diagnosis for the patient (Integra, Inc. Preferred Provider Manual, 1995). The psychotherapist is also provided with the opportunity to enter a secondary Axis I diagnosis, as well as a primary and secondary Axis II diagnosis (Integra, Inc. Preferred Provider Manual). Given the stigma associated with being diagnosed with an Axis II/personality disorder, it seemed psychotherapists were more likely to discuss the presence of such a disorder with a clinical case manager during a utilization review than to include this diagnostic information on a written form submitted to an insurance company. Therefore, the presence of an Axis II diagnosis as registered in Integra’s utilization review database was used as a factor in the analysis conducted.
Subjective Well-Being

The client's current subjective sense of well-being was measured on the Compass via the Subjective Well-Being (SWB) subscale. The five-item subscale asked clients to rate their current level of distress, energy and health, emotional/psychological coping, and life satisfaction by selecting from a set of statements ranging from negative to positive (Howard et al., 1995; Sperry et al., 1996). For example, clients were asked, “At the present time, how well do you feel that you are getting along emotionally and psychologically?” and were offered six statements from which to choose: 1) “Quite poorly; I can barely manage to deal with things,” 2) “Fairly poorly; life is pretty tough for me at times,” 3) “So-so; I manage to keep going with some effort,” 4) “Fairly well; I have my ups and downs,” 5) “Quite well; I have no important complaints,” 6) “Very well; much the way I would like to” (Howard et al.). As previously noted, the aggregate results on this subscale are factored into the client’s MHI score (Sperry et al.).

Similar to the MHI, the SWB subscale is a T score with a mean of 50 and a standard deviation of 10, with “[s]cores below 60 characteriz[ing] the patient sample” (Sperry et al., p. 77). The subscale has an internal consistency of .79 and a test-retest reliability .82 (Howard et al., 1995; Leon et al., 1999; Sperry et al.). According to
Sperry et al., the convergent validity of the subscale is as follows:

The [SWB] scale correlated .79 with the 22-item General Well-Being Scale (Dupuy, 1977), .51 with a 10-item measure of positive affect, and -.70 with a 10-item measure of negative affect (Watson & Tellegen, 1985), [sic] .73 with the total score of the SF-36 (Stewart, Hayes, & Ware, 1988), and .76 with the five-item mental health index of the SF-36 (Ware & Sherbourne, 1992) (p. 77).

As Mohr et al. (1990) pointed out, psychological theories have long suggested that an individual’s subjective sense of distress may serve as a motivator for treatment, with relatively higher levels of subjective distress providing greater impetus for change. This theoretical supposition was supported in the researchers’ findings. Thus, both theoretical models and empirical findings supported the inclusion of the client’s standardized SWB subscale score as a variable in the present analysis.

Symptom Severity

The type and severity of the client’s symptoms was assessed via the Current Symptom (CS) subscale of the Compass. This 40-item subscale was modeled after the widely-used Symptom Checklist-90 developed by Derogatis in 1977 (as cited in Sperry et al., 1996), and was based on clinical research indicating that “74.3% of outpatients had at least one of the following Axis I diagnoses: Adjustment Disorder, Anxiety, Bipolar Disorder, Depression, Obsessive-Compulsive Disorder, [and/or] Phobia. Of patients who qualified for any... Axis I diagnoses, 92.0% had one of these...” (Sperry et
al., p. 78, italics of original). Thus, the Compass CS subscale evaluates the client’s experience, over the past month, of the prominent “signs and symptoms” of these six disorders as well as substance abuse using a “5-point, fixed-response format” (Sperry et al., p. 78). The Compass evaluates a patient’s standing within each realm using a minimum of three questions; “the higher the prevalence of the diagnosis, the greater the number of questions pertaining to that diagnosis” (Sperry et al., p. 78).

The client’s result on the CS subscale was reported as a T score with a mean of 50 and standard deviation of 10. Scores of 60 and below distinguish the patient sample from the nonpatient sample (Sperry et al., 1996). The subscale has an overall internal consistency of .94, reliability of .85, and convergent validity of .91 with the SCL-90R abbreviated form (Sperry et al.). Scores on the CS subscale are combined with the client’s results on the CLF and SWB subscales to arrive at the MHI.

**Treatment Outcome Expectancy**

The client’s expectations for treatment outcome were assessed via four client-rated questions – three in the “Current Treatment Expectations” (CTE) subsection of the Compass and one in the “Treatment Need and Expectations” (TNE) subsection (Howard et al., 1995). Specifically, the client was asked “How important to you is it to be in counseling or psychotherapy at this time?” with five forced-choice responses (Sperry et al., 1996) ranging from “It is absolutely essential to me” to “It is not important to me at all” (Howard et al.). The client was also asked to rate “How
difficult is it going to be for you to be in counseling/psychotherapy (in terms of effort, cost, lost job time, transportation, other people’s opinions, etc.)?” and was provided with six response options ranging from “It will be easy for me” to “It will be impossible” (Howard et al.). The client was asked to state “How confident are you that counseling or psychotherapy will be successful in helping you with your problems?” by selecting from four choices ranging from “Not at all confident” to “Very confident” (Howard et al.). Last, the client was asked to respond to the question “When you finish counseling or psychotherapy, how well do you feel that you will be getting along emotionally and psychologically?” by choosing from six statements ranging from “Quite poorly; I will be barely able to manage to deal with things” to “Very well; much the way I would like to” (Howard et al.). As described in a later, relevant section, preliminary statistical analyses revealed low reliability within this subscale; as a result, this factor was replaced with a substitute factor, client’s reported initial level of distress (IN_DIST).
Therapeutic Alliance

The client's perception of the alliance was assessed via the Therapeutic Bond subscale (TB) provided within the Compass (Howard et al., 1995; Leon et al., 1999; Sperry et al., 1996). According to Sperry et al., this subscale is "based on the generic model conception of the therapeutic bond" (p. 84) of Orlinsky and Howard (1987); as a result, it was designed to assess the quality of the working alliance, the degree of empathic resonance between therapist and client, and the presence of mutual affirmation between client and therapist (Orlinsky & Howard; Saunders et al., 1989; Sperry et al.). The subscale was designed using "item-total correlations" to "select... the best four items for each of the three-bond [sic] constructs" from the 50-item Therapeutic Bond Scale, an independent rating measure designed by Saunders and colleagues (Sperry et al., p. 84). The resulting Compass subscale has a correlation of .81 with the Therapeutic Bond Scale designed by Saunders et al. (Sperry et al.). The Compass subscale has an internal consistency .88 and a test-retest reliability of .62 (Howard et al.; Leon et al.; Sperry et al.). Consistent with the research findings presented in the literature addressing the impact of the therapeutic bond on treatment outcome, the client's initial rating of the therapeutic bond (i.e., bond rated on the first Compass measure completed) was used as a variable in the present study.
Therapist’s Terminal Degree Status

Each psychotherapist’s terminal degree status at the time each client was treated was determined from the utilization review database record. At the time of utilization review, the psychotherapist’s name, degree, professional information (i.e., areas of specialty) and demographic information were entered into the patient’s individual utilization review record for each discrete treatment episode. This data was then saved in the utilization review record. Thus, it was possible to ascertain the psychotherapist’s terminal degree status at the time of treatment. Psychotherapists were assigned to one of three mutually-exclusive categories: (1) doctoral-level clinician (physician or psychologist) (DOC); (2) master’s-level clinician (master’s level psychologist, social worker, and marriage or family therapist) (MP); or (3) other clinician (i.e., registered nurse) or missing data (OTH). Once entered into the data set used in the final statistical analysis, it was not possible to determine the unique identity of the psychotherapist, nor was it possible to determine the therapist’s “case load.” Unfortunately, it was therefore not possible to determine which therapists were “overrepresented” in the sample, in terms of the number of patients they had treated. The limitations this imposes on the interpretation and generalizability of the findings is discussed in the upcoming relevant section of this manuscript.
Profile of Responders, Nonresponders, and Negative Responders

Procedure

According to the utilization review procedures of Integra, Inc., patients were required to complete the Compass measure just prior to the first treatment session, and approximately every four to six sessions thereafter (Integra, Inc. Preferred Provider Manual, 1995). All patients signed informed consent statements indicating that Compass results submitted would be used for research purposes. In order to protect the privacy and confidentiality of participants involved, no information potentially leading to the identification of individual patients was retained.

Planned Data Analyses

Given that the goal of the present study was to determine the clinical factors relevant to treatment outcome, a standard discriminant function analysis was determined to be the primary analysis of choice for predicting group membership based on the dependent variables selected (Stice, Killen, Hayward, & Taylor, 1998; Tabachnick & Fidell, 1989). Discriminant analysis ascertains “whether [specifically selected] predictors can be combined to predict group membership reliably” (Tabachnick & Fidell, p. 506). This process can be “carried to the point of actually putting cases into groups...,” thereby “classifying” the cases into discrete categories with uniquely meaningful properties (Tabachnick & Fidell, p. 506). In addition, the discriminant analysis process determines the intercorrelations among the predictive
variables found to be relevant in determining group membership (Stice et al., 1988; Tabachnick & Fidell), thereby addressing the nature of the specific overall conditions present that allowed for the assignment of individuals into a specific group (Tabachnick & Fidell).

Moreover, discriminant analysis "determines which linear combination of factors best differentiates two or more groups" (Stice et al., p. 1998, p. 186). Thus, through discriminant analysis, it is possible to determine the degree of similarity between the groups (Stice et al.; Tabachnick & Fidell). In the present study, three possibilities exist. First, "treatment responders (TR)," "treatment nonresponders (TNR)," and "negative treatment responders (NGTR)," could represent three patient types varying on a continuum of predictive factors, with progressively severe impairment along the continuum of predictors (Mohr, et al., 1990; Stice et al.). Second, patients in two of the groups could be more similar than those in a third group (Stice et al.; Tabachnick & Fidell). In other words, "treatment responders" and "treatment nonresponders" could be more similar in predictive characteristics, with "negative treatment responders" being a distinctly different group of patients; conversely, "treatment nonresponders" and "negative treatment responders" could be more similar in predictive characteristics, with "treatment responders" achieving much different scores on predictive measures of outcome (Stice et al.; Tabachnik & Fidell). Last, each group could be a completely distinct entity bearing no significant resemblance to the other groups (Mohr et al.).
Following completion of the standard discriminant function analysis, post-hoc pairwise univariate analyses (ANOVA and chi-square) were planned. These analyses were intended to determine the specific predictive variables on which the treatment outcome groups were actually significantly different, providing further information regarding the factors specifically involved in treatment response, nonresponse, and negative response and further honing the predictive profile (Stice et al., 1998; Tabachnick & Fidell, 1989).
CHAPTER 3 — RESULTS

Preliminary Analyses

Retention of Participants With at Least Three Data Points

Based on the findings of Howard et al. (1986) indicating that “10% to 18% of patients [can] be expected to... show... some improvement before the first session of psychotherapy,” that “by eight sessions, 48% to 58% of patients would be expected to have measurably improved,” and that “[a]bout 75% of patients should... show... measurable improvement by the end of six months of once-weekly psychotherapy (26 sessions)” (p. 162) (K. I. Howard, personal communication, September, 1999), it was deemed reasonable to evaluate the treatment progress results of clients who had completed three Compass measures (and thus had received approximately 12-18 treatment sessions) within the same treatment episode (G. Grissom, personal communication, December 19, 2000; K. I. Howard, personal communication, September, 1999). Thus, participants having completed fewer than three Compass questionnaires were permanently deleted from the database. An independent researcher with no other involvement in the study at hand irreversibly scrambled all identifying information for the remaining participants.
Preliminary Review of Predictor Variables

Next, a preliminary review of all of the predictor variables was done to ensure the integrity of the data sample. A problem interfering with successful data analysis was found for client-rated outcome expectancy (CTE+TNE). Specifically, reliability analyses revealed that the “Current Treatment Expectations” (CTE) subsection and the “Treatment Needs and Expectations” (TNE), intended to cumulatively provide an assessment of the patient’s expectation of treatment outcome (CTE+TNE), yielded low alpha scores ($\alpha = .47$) that would not reliably contribute to the analysis.

The scales were submitted to a factor analysis, which extracted three factors with varying reliability scores. Factor I ($\alpha = .73$) addressed the severity of the patient’s distress at the time of treatment initiation, including the level of importance placed on being in treatment and the patient’s emotional state at the time the initial appointment was scheduled (i.e., severity of upset). Factor II ($\alpha = .37$) focused on the patient’s motivation and expectations for treatment (i.e., how difficult it would be to participate in treatment, certainty that treatment would be helpful, and expected level of general functioning at the end of treatment). The low reliability on the treatment motivation and expectations factor was surprising, given the literature suggesting that the patient’s expectation of treatment results is a major predictor of treatment (R. DiTomasso, personal communication, December, 2001) (please refer to the relevant previous section of this manuscript for a review of the pertinent literature). Factor III ($\alpha = .14$) addressed the chronicity of the client’s present difficulties with items addressing the
length of time the client had been concerned about the presenting problem and the amount of psychotherapy treatment the client had received in the past. The three factors combined, as previously mentioned, yielded a reliability score ($\alpha = .47$) inappropriate for inclusion in the analyses planned. As a result, only Factor I was retained in the planned analyses; this variable was labeled “Initial Distress” (IN_DIST), and the CTE+TNE variable was eliminated from the analysis.

**Assignment of Participants to Outcome Groups (TR, TNR, NGTR)**

The treatment progress of the 900 total sample participants was then evaluated and sorted based on the definition of clinically significant/reliable change suggested by Jacobson and Truax (1991) and the modifications of this definition employed by Mohr et al. (1990) (a discussion of the many complex and controversial issues involved in assessing clinical change is beyond the scope of this manuscript; please refer to Martinovich, Saunders, and Howard, 1996 for an excellent review of the topic). The participants were grouped using one standard error of estimate ($SE_{est}$), calculated to be 5.7236 for the Compass instrument (Z. Martinovich & B. Briscoe, personal communication, December, 2001), as a sorting criterion (Mohr et al.). Treatment outcome group assignment of the participants was then completed as follows: (1) participants demonstrating an improvement in MHI score of greater than or equal to one $SE_{est}$ (5.7236) over baseline (the results of the first questionnaire administration) by the time of the completion of the third questionnaire were placed in the “treatment
responders” (TR) category (n = 403); (2) participants evidencing either improvement or
deterioration in MHI score of less than one SE_{est} (5.7236) over baseline by the
completion of the third Compass questionnaire were placed in the “treatment
nonresponders” (TNR) category (n = 404); (3) participants showing a decline in MHI
score of greater than or equal to one SE_{est} (5.7236) over baseline by the time of the
completion of the third questionnaire were placed in the “treatment nonresponders”
(NGTR) category (n = 93) (Mohr et al., 1990).

Comparison of Demographic Characteristics of Outcome Groups (TR, TNR, NGTR)

Following the grouping of participants, a comparison of the demographic
characteristics of the participants assigned to each outcome group was originally
planned. However, as previously mentioned, an excessive amount of demographic
data was missing from the archival data being used; therefore, it was not possible to
meaningfully evaluate whether statistically significant differences existed among the
three groups of participants (TR, TNR, NGTR) on the basis of these traits (B. Briscoe,
personal communication, December, 2001). The ramifications of this unanticipated
difficulty will be discussed in the relevant upcoming section of this manuscript.
Log-Linear Function Estimation of Treatment Outcome

In order to adjust for the wide range in the number of treatment sessions received by each participant, and the varying length of time each participant was in treatment, a hierarchical linear modeling procedure was used in order to “factor out,” or hold constant, time as a confounding factor (Z. Martinovich, personal communication, December 26, 2001). Specifically, based on each participant’s treatment-response data up to session 12 (the mean and modal number of sessions), a log-linear function was used to estimate each participant’s scores on the selected independent variables at the end of the treatment process (B. Briscoe, personal communication, November 6, 2001; Z. Martinovich, personal communication, December 26, 2001) (please refer to Howard et al., 1996 for a detailed discussion of the theory, research, and specific process involved in this procedure). This procedure has been used in previously published research investigating individual treatment response and treatment outcome (Howard et al.; Lueger et al., 2001; Lutz et al., 1999).

Descriptive Statistics

Descriptive statistics were conducted to assess the performance of each criterion group on each predictor variable for the total sample of 900 patients. All scores were taken from the first completed Compass assessment with the exception of session number predictors (indicating total sessions completed at the third Compass
assessment and the natural log of this number). Results of the analyses are presented in Table 4.

Examination of the data indicates that the TR and TNR groups are nearly the same size, while the NGTR group is one-fourth the size of these groups. The greatest amount of variability among groups occurred within the total number of sessions at the third Compass assessment, though nearly the same mean number of sessions was completed across the three groups at the time of third assessment. Those within the NGTR group had the greatest amount of variability in the number of sessions completed, while those within the TR group had the least. Very little difference in the number of sessions completed (a time factor) exists across the groups after the natural log of the session number has been taken; this indicates that the calculation was successful in holding the time factor constant for the purpose of the analysis (Z. Martinovich, personal communication, January 11, 2002).
### Table 4

Description of Predictor Variable Scores in Treatment Responder, Treatment Nonresponder, and Negative Treatment Responder Outcome Groups of Total Research Sample (N = 900)

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<th>Negative Treatment Responder (NGTR)</th>
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<tr>
<td>M</td>
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<td></td>
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<td>93</td>
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(Table 4 continues)
(Table 4, continued)

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<th>Treatment Nonresponder (TNR)</th>
<th>Negative Treatment Responder (NGTR)</th>
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<tr>
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<td>6.85</td>
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<tr>
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<td>6.93</td>
<td>6.68</td>
<td>6.43</td>
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<tr>
<td>%</td>
<td>12.7</td>
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<td>15.1</td>
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<tr>
<td>N</td>
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<td></td>
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<td>42.95</td>
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<td>46.82</td>
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<td>SD</td>
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<td>n</td>
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(Table 4 continues)
<table>
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<th>Predictor variable</th>
<th>Treatment Responder (TR)</th>
<th>Treatment Nonresponder (TNR)</th>
<th>Negative Treatment Responder (NGTR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree status, doctorate (%)</td>
<td>29.8</td>
<td>34.2</td>
<td>29</td>
</tr>
<tr>
<td>Degree status, master's (%)</td>
<td>69.9</td>
<td>64.6</td>
<td>69.9</td>
</tr>
<tr>
<td>Session number, 3rd assessment (SN)</td>
<td>12.33</td>
<td>13.66</td>
<td>13.25</td>
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<tr>
<td>Log10 session number, 3rd assessment (LOG)</td>
<td>1.06</td>
<td>1.10</td>
<td>1.08</td>
</tr>
</tbody>
</table>
In general, the largest mean score differences on predictor variables occurred in
the client-rated variables, including (in descending order of greatest mean difference)
Current well-being (CWB), Symptoms (CS), and client-rated Current life-functioning
(CLF). The greatest degree of variance occurred within these variables as well. It is
interesting to note that there was little difference in the mean therapeutic bond score
across groups but a noteworthy difference in the variance between groups, with the
NGTR group showing relatively less variance and the TNR group demonstrating
relatively greater variance in bond scores.

In contrast, very little variance occurred among groups in the discrepancy
between therapist and patient perception of current patient general functioning (DGF).
Interestingly, very little within- and between-group variance is noted with regard to the
participant’s subjective sense of initial distress reported. The TR group reported
relatively more distress ($M = 1.69$) and the NGTR group reported relatively less
distress ($M = 2.33$), but participants within all three groups were in significant distress,
given that lower Likert scale responses to the Compass items measuring distress
indicated more intense distress (1 = Extremely distressed; 2 = Very distressed; 3 =
Pretty distressed; 4 = Slightly distressed; 5 = Not at all distressed) (S. Felgoise,
personal communication, January, 2002).

Overall, there are no “gross discrepancies” among the groups on predictor
variables suggestive of a violation of the assumption of homogeneity of variance, given
the “robustness” of the discriminant function analysis (B. Briscoe, personal
communication, January, 2002; Tabachnick & Fidell, 1989, p. 556; Z. Martinovich,
personal communication, January 11, 2002). Therefore, no further steps were taken to adjust for the discrepancies among the groups (Tabachnick & Fidell; Z. Martinovich, personal communication, January 11, 2002).

Random Assignment of Participants to Samples

Following an examination of the results of descriptive and univariate statistics conducted on the demographic data available for the total research sample of 900 participants, the participants were randomly assigned (using the SPSS statistical analysis package) to two samples of 450 participants so that a cross-validation (Licht, 1995; Tabachnick & Fidell, 1989) study could be conducted. Thus, 450 cases (Sample 1) were randomly assigned for use in Study 1; the remaining 450 records (Sample 2) were allocated for Study 2. A review of the results of the statistical analyses run on the two sample groups \( n = 450 \) (reported in Table 8), and compared with the total research sample \( n = 900 \) (reported in Table 2), do not suggest any noteworthy differences between the groups with regard to the predictor variables selected (Tabachnick & Fidell, 1989). Therefore, the final analyses planned for the study were carried out without any further statistical adjustments made to equalize the samples (Tabachnick & Fidell).
Preliminary Discriminant Function Analysis Including All Predictor Variables

A preliminary standard discriminant function analysis of Sample 1, including all of the initially-selected predictor variables, was run to determine the potential of the variables to predict group membership (results are reported in Table 5, Table 6, and Table 7). Two discriminant functions with a combined $\chi^2 (24) = 149.15, p < .001$ (Tabachnick & Fidell, 1989) were derived. Factor 1 accounted for the 33% of the variance, while Factor 2 accounted for 6% of the variance. As indicated in the results reported in Table 7, selected predictor variables submitted to discriminant function analyses did lead to the successful classification of participants into distinct treatment outcome groups. Closer examination of the structure matrix (Table 6) indicated all selected predictor variables contributed to treatment outcome group differentiation. However, very low correlations existed between the DGS_D and DGS_M predictor variables and the discriminant function (.117 and -.117 respectively); these variables were therefore dropped from further analysis. All other variables achieved a correlation of at least .20 (an arbitrarily determined cutoff, slightly lower than the conventional .30 described by Tabachnick and Fidell, 1989), and were therefore retained in the final analysis.
Table 5

Results of Preliminary Standard Discriminant Function Analysis Evaluating Potential for Predictors to Classify Sample 1 Participants into Treatment Outcome Groups

<table>
<thead>
<tr>
<th>Function</th>
<th>Eigenvalue</th>
<th>% of variance</th>
<th>Canonical correlation</th>
<th>Wilks' λ</th>
<th>$X^2$</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 through 2</td>
<td>--</td>
<td>--</td>
<td>.497</td>
<td>.713</td>
<td>149.15*</td>
<td>24</td>
</tr>
<tr>
<td>1</td>
<td>.328</td>
<td>85.4</td>
<td>.230</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>2</td>
<td>.056</td>
<td>14.6</td>
<td>--</td>
<td>.947</td>
<td>24.03*</td>
<td>11</td>
</tr>
</tbody>
</table>

*p < .05
Table 6

Correlation of Predictor Variables with Discriminant Functions (Function Structure Matrix) and Standardized Discriminant Function Coefficients, Preliminary Analysis, Sample 1

<table>
<thead>
<tr>
<th>Predictor variable</th>
<th>Correlation with discriminant functions</th>
<th>Standardized canonical discriminant function coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Function 1</td>
<td>Function 2</td>
</tr>
<tr>
<td>Current well-being (CWB)</td>
<td>.802*</td>
<td>.159</td>
</tr>
<tr>
<td>Symptoms (SXS)</td>
<td>.741*</td>
<td>-.076</td>
</tr>
<tr>
<td>Current life functioning, client-rated (CLF)</td>
<td>.638*</td>
<td>-.192</td>
</tr>
<tr>
<td>Initial distress (IN_DIST)</td>
<td>.484*</td>
<td>-.094</td>
</tr>
<tr>
<td>Perceived difference in functioning (DGF)</td>
<td>-.226*</td>
<td>.017</td>
</tr>
<tr>
<td>Current life functioning, therapist-rated (TLF)</td>
<td>.205*</td>
<td>.005</td>
</tr>
<tr>
<td>Degree status, master’s (DGS_M)</td>
<td>-.117*</td>
<td>.059</td>
</tr>
<tr>
<td>Degree status, doctorate (DGS_D)</td>
<td>.117*</td>
<td>-.087</td>
</tr>
<tr>
<td>Session number, 3rd assessment (SN)</td>
<td>.038</td>
<td>.665*</td>
</tr>
<tr>
<td>Therapeutic bond (TB)</td>
<td>.007</td>
<td>.464*</td>
</tr>
<tr>
<td>Axis II diagnosis (DX)</td>
<td>.047</td>
<td>.345*</td>
</tr>
<tr>
<td>Global assessment score (GAS)</td>
<td>.274</td>
<td>-.324*</td>
</tr>
</tbody>
</table>

*Largest absolute correlation between each variable and any discriminant function.
Table 7

Classification of Treatment Response in Preliminary Analysis of Sample 1

<table>
<thead>
<tr>
<th>Actual group membership</th>
<th>Predicted group membership</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Negative treatment responders (NGTR)</td>
<td>Treatment nonresponders (TNR)</td>
<td>Treatment responders (TR)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>n</td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Negative treatment responders (NGTR)</td>
<td>48</td>
<td>13</td>
<td>27.1</td>
<td>25</td>
</tr>
<tr>
<td>Treatment nonresponders (TNR)</td>
<td>191</td>
<td>6</td>
<td>3.1</td>
<td>118</td>
</tr>
<tr>
<td>Treatment responders (TR)</td>
<td>211</td>
<td>1</td>
<td>.5</td>
<td>54</td>
</tr>
</tbody>
</table>

Note. Overall percentage of correctly classified cases = 63.8

Primary Analyses

Descripctive and univariate analyses of predictor variables.

Prior to submitting the selected variables to a final, standard discriminant function analysis, descriptive analyses (presented in Table 8) and univariate analyses (presented in Table 9) were conducted on Sample 1 (n = 450).
Table 8

Description of 11 Predictor Variables for Treatment Outcome Group Classification.

Sample 1 \((n = 450)\)

<table>
<thead>
<tr>
<th>Predictor variable</th>
<th>Treatment Responder (TR)</th>
<th>Treatment Nonresponder (TNR)</th>
<th>Negative Treatment Responder (NGTR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current well-being (CWB)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>39.94</td>
<td>46.80</td>
<td>56.66</td>
</tr>
<tr>
<td>SD</td>
<td>9.07</td>
<td>9.15</td>
<td>10.23</td>
</tr>
<tr>
<td>N</td>
<td>199</td>
<td>213</td>
<td>38</td>
</tr>
<tr>
<td>Symptoms (CS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>42.49</td>
<td>49.00</td>
<td>56.21</td>
</tr>
<tr>
<td>SD</td>
<td>9.49</td>
<td>8.16</td>
<td>8.15</td>
</tr>
<tr>
<td>N</td>
<td>199</td>
<td>213</td>
<td>38</td>
</tr>
<tr>
<td>Current life functioning, client-rated (CLF)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>43.48</td>
<td>49.26</td>
<td>54.82</td>
</tr>
<tr>
<td>SD</td>
<td>8.82</td>
<td>7.71</td>
<td>9.16</td>
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<tr>
<td>N</td>
<td>199</td>
<td>213</td>
<td>38</td>
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<tr>
<td>Initial distress (IN_DIST)</td>
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<td></td>
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</tr>
<tr>
<td>M</td>
<td>1.67</td>
<td>1.99</td>
<td>2.23</td>
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<tr>
<td>SD</td>
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<td>.65</td>
<td>.64</td>
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<td>N</td>
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(Table 8 continues)
(Table 8, continued)

<table>
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<th>Negative Treatment Responder (NGTR)</th>
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<tbody>
<tr>
<td>Current life functioning, therapist-rated (TLF)</td>
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<td></td>
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<tr>
<td>M</td>
<td>46.68</td>
<td>48.43</td>
<td>50.45</td>
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<td>SD</td>
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<td>7.44</td>
<td>6.84</td>
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<tr>
<td>Perceived difference in functioning (DGF)</td>
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<tr>
<td>M</td>
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<td>6.68</td>
<td>6.47</td>
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<td>.87</td>
<td>.95</td>
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<td>n</td>
<td>199</td>
<td>213</td>
<td>38</td>
</tr>
<tr>
<td>Therapeutic Bond (TB)</td>
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</tr>
<tr>
<td>M</td>
<td>64.34</td>
<td>63.88</td>
<td>65.66</td>
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<tr>
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<tr>
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<td>38</td>
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<tr>
<td>Axis II diagnosis (DX)</td>
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</tr>
<tr>
<td>%</td>
<td>12.1</td>
<td>9.9</td>
<td>18.4</td>
</tr>
<tr>
<td>n</td>
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<td>6.95</td>
</tr>
<tr>
<td>n</td>
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<td>213</td>
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## Profile of Responders, Nonresponders, and Negative Responders

(Continued)

<table>
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<tr>
<th>Predictor variable</th>
<th>Treatment Responder (TR)</th>
<th>Treatment Nonresponder (TNR)</th>
<th>Negative Treatment Responder (NGTR)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Session number, 3rd assessment (SN)</strong></td>
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<td>15.71</td>
</tr>
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<td><strong>SD</strong></td>
<td>5.00</td>
<td>5.51</td>
<td>10.32</td>
</tr>
<tr>
<td><strong>n</strong></td>
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<td>38</td>
</tr>
<tr>
<td><strong>Log10 session number, 3rd assessment (LOG)</strong></td>
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<td>1.07</td>
<td>1.10</td>
<td>1.13</td>
</tr>
<tr>
<td><strong>SD</strong></td>
<td>.15</td>
<td>.16</td>
<td>.23</td>
</tr>
<tr>
<td><strong>n</strong></td>
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<td>213</td>
<td>38</td>
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Table 9

Univariate Analyses of Variance for 11 Predictor Variables and Three Treatment Outcome Group Classifications for Sample 1 (n = 450)

<table>
<thead>
<tr>
<th>Variable and source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F / $\chi^2$ (as appropriate)</th>
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<tr>
<td>Current well-being (CWB)</td>
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<tr>
<td>Between groups</td>
<td>2</td>
<td>10886.74</td>
<td>5433.37</td>
<td>64.05***</td>
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<tr>
<td>Within groups</td>
<td>447</td>
<td>37917.26</td>
<td>84.83</td>
<td></td>
</tr>
<tr>
<td>Symptoms (CS)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Between groups</td>
<td>2</td>
<td>8086.41</td>
<td>4043.21</td>
<td>52.51***</td>
</tr>
<tr>
<td>Within groups</td>
<td>447</td>
<td>34418.05</td>
<td>77.00</td>
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<td></td>
<td></td>
</tr>
<tr>
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<td>2</td>
<td>5860.46</td>
<td>2930.23</td>
<td>42.10***</td>
</tr>
<tr>
<td>Within groups</td>
<td>447</td>
<td>31114.68</td>
<td>69.61</td>
<td></td>
</tr>
<tr>
<td>Initial distress (IN_DIST)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Between groups</td>
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<td>37.87</td>
<td>18.93</td>
<td>45.59***</td>
</tr>
<tr>
<td>Within groups</td>
<td>447</td>
<td>372.51</td>
<td>.42</td>
<td></td>
</tr>
<tr>
<td>Current life functioning, therapist-rated (TLF)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Between groups</td>
<td>2</td>
<td>1113.50</td>
<td>556.75</td>
<td>10.25***</td>
</tr>
<tr>
<td>Within groups</td>
<td>447</td>
<td>48726.05</td>
<td>54.32</td>
<td></td>
</tr>
</tbody>
</table>

* $p < .05$.  ** $p < .01$.  *** $p < .001$
Profile of Responders, Nonresponders, and Negative Responders

(Table 9, continued)

<table>
<thead>
<tr>
<th>Variable and source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F / X^2 (as appropriate)</th>
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</thead>
<tbody>
<tr>
<td>Perceived difference in functioning (DGF)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between groups</td>
<td>2</td>
<td>7.47</td>
<td>3.73</td>
<td>5.061**</td>
</tr>
<tr>
<td>Within groups</td>
<td>447</td>
<td>329.72</td>
<td>.74</td>
<td></td>
</tr>
<tr>
<td>Therapeutic bond (TB)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between groups</td>
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<td>1.63</td>
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<td>Within groups</td>
<td>447</td>
<td>14443.11</td>
<td>32.31</td>
<td></td>
</tr>
<tr>
<td>Axis II diagnosis (DX)</td>
<td>2</td>
<td>--</td>
<td>--</td>
<td>2.40</td>
</tr>
<tr>
<td>Global assessment score (GAS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between groups</td>
<td>2</td>
<td>781.28</td>
<td>390.64</td>
<td>5.84**</td>
</tr>
<tr>
<td>Within groups</td>
<td>447</td>
<td>29878.00</td>
<td>66.84</td>
<td></td>
</tr>
<tr>
<td>Session number, 3rd assessment (SN)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between groups</td>
<td>2</td>
<td>296.39</td>
<td>148.19</td>
<td>4.32*</td>
</tr>
<tr>
<td>Within groups</td>
<td>447</td>
<td>15322.72</td>
<td>34.28</td>
<td></td>
</tr>
<tr>
<td>Log10 session number, 3rd assessment (LOG)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between groups</td>
<td>2</td>
<td>.131</td>
<td>.007</td>
<td>2.45</td>
</tr>
<tr>
<td>Within groups</td>
<td>447</td>
<td>11.94</td>
<td>.003</td>
<td></td>
</tr>
</tbody>
</table>

*p < .05. **p < .01. ***p < .001
The descriptive analyses suggest distinct differences in the group means on the eleven selected predictor variables. Univariate analyses of variance (ANOVAs) confirm a significant difference in the reported average subjective sense of well-being (CWB), symptom-severity (CS), and client rated life functioning (CLF) for TRs, TNRs, and NGTRs. While the ANOVAs run cannot determine where the significant differences lie (i.e., between one specific outcome group and another), which will be explored in upcoming planned post hoc analyses, an informal review of group means offers some tentative clues.

According to these results, participants classified in the TR group began treatment with a lower relative sense of well-being (CWB), greater perceived symptom-severity (CS), and lower life functioning (CLF) capacity in comparison with NGTRs. On each of these variables, the average scores of TNRs fell between those of the TR and NGTR group. Examination of the univariate analysis results suggests that the groups differed significantly on each of these variables. Similarly, therapist’s ratings of client life functioning (TLF) among the groups also differed significantly, in the same direction as client ratings. In other words, both clients (CLF) and therapists (TLF) perceived the life functioning of clients in the three outcome groups to differ significantly, and both assessed NGTRs as functioning better, in general, than TRs at the initial assessment. In the ratings of patient global functioning (GAS), therapists also rated NGTRs, TNRs and TRs as significantly different, and again, NGTRs were rated as being less impaired in global functioning (GAS) than NGTRS. Thus, on the basis of initial univariate assessments of the difference between group means, at
treatment outset, NGTRs as a group did not strike therapists as being particularly severely impaired in life functioning (TLF) or global functioning (GAS); on the contrary, NGTRs were judged to be functioning slightly better than patients in other outcome groups.

The groups did not differ significantly on three variables – time in treatment (LOG), client-rated initial therapeutic bond (TB), and Axis II diagnosis (DX). Given that all scores had been adjusted to hold time, as a confounding factor, constant, and given the finding that the groups did not differ significantly with regard to time in treatment as a stand-alone variable, LOG was not included in the final discriminant function analysis.

Despite the finding that the three groups did not differ significantly on initial therapeutic bond rating (TB) and Axis II diagnosis (DX), unlike LOG these variables were nonetheless retained in the final analysis. Admittedly, it is unorthodox to include, in subsequent analyses, variables not found to significantly differentiate between groups in earlier analyses (R. DiTomasso & S. Felgoise, personal communication, January 9, 2002). However, these two variables were arguably blurred by error variance that may have prevented the attainment of statistical significance in differentiating the three treatment outcome groups but may still have contributed to treatment outcome group classification when combined, in a linear fashion, with other variables (Z. Martinovich, personal communication, January 11, 2002).
Moreover, the possible sources of error variance in the therapeutic bond (TB) and Axis II diagnosis (DX) variables are readily explained. First, considerable error variance may have been introduced into the therapeutic bond (TB) variable as a result of the Compass questionnaire completion process. As previously noted, the Compass measure is completed by both the client and the psychotherapist. Following completion of the form section for client use, clients submit the Compass to the treating clinician. The psychotherapist then finishes the form portion involving clinician ratings and submits the form to the insurer for processing. As a result, clients' willingness to honestly evaluate the clinician and the therapeutic relationship may be hampered by the knowledge that the clinician is likely to review these ratings when the Compass is given to the clinician (G. Grissom, personal communication, February 4, 2001). While this confound may have prevented the therapeutic bond (TB) variable from achieving statistical significance in differentiating the treatment outcome groups, it was possible that when combined with other variables in a linear fashion, therapeutic bond (TB) could still play a role in treatment outcome group classification (Z. Martinovich, personal communication, January 11, 2002).

Similarly, although a dichotomous variable for the purposes of this study, there are in reality 11 different Axis II diagnoses, each with relatively distinct features (DSM-IV, 1994). In merging all of the diagnoses into one representative dichotomous variable (DX), the predictor may have been “muddied” with error variance that prevented the attainment of statistical significance in differentiating the outcome groups on this variable, but may have combined with other factors to play a significant
role in treatment outcome group classification (Z. Martinovich, personal communication, January 11, 2002). In addition, error variance is introduced by the fact that Axis II diagnosis was obtained from the direct reports of psychotherapists to health insurance company case managers. Given the stigma associated with character pathology, it is highly likely that psychotherapists were loath to report such diagnoses, causing an unrealistically low representation of these diagnoses. It seemed worthwhile to explore whether this variable (DX) would combine with another, related variable in the discriminant function analysis; therefore, both variables were retained for the purpose of the final analysis.

Standard discriminant function analysis of predictor variables.

The independent variables selected for inclusion in the final discriminant function analysis were as follows: initial (taken from the first completed Compass measure) client-rated Therapeutic Bond (TB), Axis II diagnosis (DX) (as indicated by therapist’s report during the utilization-review process), client-rated Life Functioning (CLF), Current Symptom Severity (CS), Subjective Well-Being (CWB), client-rated initial level of distress (IN_DIST), therapist-completed global assessment of functioning (GAS), and therapist-rated Life Functioning (TLF) (all variables other than Therapeutic Bond and Axis II diagnosis were derived from scores achieved on the third Compass scale completed). Participants’ estimated scores (as described in a previous relevant section of this manuscript) on the selected independent variables were
submitted to a standard discriminant function analyses (DFA) in which all variables were simultaneously entered into the SPSS DISCRIM computer model (results are summarized in Table 10, Table 11, and Table 12). Only one variable, session number at 3rd Assessment (SN), was not found to play a significant role in predicting outcome group membership; all of the remaining variables were found to contribute to the prediction of outcome group membership (TR, TNR, NGTR). All of the variables were then submitted to final post-hoc pairwise analyses using the Tukey Honestly Significant Different test ($p < .05$) to further investigate the role of each factor in the prediction of treatment outcome group membership. This statistical test provides a stringent evaluation of pairwise differences between groups on specific variables (Z. Martinovich, personal communication, January 11, 2002); results of these analyses are presented in Table 13.

Results of the main discriminant function analysis yield two factors; Factor 1 explains the “lion’s share” of the variance (Tabachnick & Fidell, 1989, p. 536), accounting for 47% of the variance. The structure matrix of factor loadings suggest that the variables most strongly associated with successful treatment outcome group classification are those reflecting the client’s subjective psychological state (R. DiTomasso, personal communication, December, 2001), or general feeling of emotional health (Z. Martinovich, personal communication, January 11, 2002) – well-being (CWB), symptom severity (CS), life functioning (CLF), and level of distress (IN_DIST). Perhaps counterintuitive, but consistent with the literature (Mohr et al.,
1990), TRs reported the lowest levels of subjective well-being (CWB) (mean = 39.94) and perceived life-functioning (CLF) (mean = 43.48), and reported experiencing the

Table 10

Results of Primary Standard Discriminant Function Analysis Classifying Sample 1 Participants into Treatment Outcome Groups

<table>
<thead>
<tr>
<th>Function</th>
<th>Eigenvalue</th>
<th>% of variance</th>
<th>Canonical correlation</th>
<th>Wilks' $\lambda$</th>
<th>$X^2$</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 through 2</td>
<td>--</td>
<td>--</td>
<td>.564</td>
<td>.667</td>
<td>179.25***</td>
<td>18</td>
</tr>
<tr>
<td>1</td>
<td>.467</td>
<td>95.5</td>
<td>.146</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>2</td>
<td>.022</td>
<td>4.5</td>
<td>--</td>
<td>.979</td>
<td>24.03</td>
<td>8</td>
</tr>
</tbody>
</table>

***$p < .001$
Table 11

Correlation of Predictor Variables with Discriminant Functions (Function Structure Matrix), Standardized and Unstandardized Discriminant Function Coefficients, Primary Analysis, Sample 1

<table>
<thead>
<tr>
<th>Predictor variable</th>
<th>Correlation with discriminant functions</th>
<th>Standardized canonical discriminant function coefficients</th>
<th>Unstandardized canonical discriminant function coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Function 1</td>
<td>Function 2</td>
<td>Function 1</td>
</tr>
<tr>
<td>Current well-being (CWB)</td>
<td>.783*</td>
<td>.091</td>
<td>.732</td>
</tr>
<tr>
<td>Symptoms (CS)</td>
<td>.708*</td>
<td>-.227</td>
<td>.367</td>
</tr>
<tr>
<td>Current life functioning, client-rated (CLF)</td>
<td>.631*</td>
<td>-.344</td>
<td>.510</td>
</tr>
<tr>
<td>Initial distress (IN_DIST)</td>
<td>.428*</td>
<td>-.377</td>
<td>-.212</td>
</tr>
<tr>
<td>Perceived difference in general functioning (DGF)</td>
<td>-.219*</td>
<td>.109</td>
<td>.176</td>
</tr>
</tbody>
</table>

(Table 11 continues)
(Table 11, continued)

<table>
<thead>
<tr>
<th>Predictor variable</th>
<th>Correlation with discriminant functions</th>
<th>Standardized canonical discriminant function coefficients</th>
<th>Unstandardized canonical discriminant function coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Function 1</td>
<td>Function 2</td>
<td>Function 1</td>
</tr>
<tr>
<td>Current life functioning, therapist-rated (TLF)</td>
<td>.230*</td>
<td>-.059</td>
<td>-.051</td>
</tr>
<tr>
<td>Therapeutic bond (TB)</td>
<td>.043</td>
<td>.543*</td>
<td>.056</td>
</tr>
<tr>
<td>Axis II diagnosis (DX)</td>
<td>.037</td>
<td>.467*</td>
<td>.079</td>
</tr>
<tr>
<td>Global assessment score (GAS)</td>
<td>.229</td>
<td>-.278*</td>
<td>-.083</td>
</tr>
<tr>
<td>(Constant)</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

*Largest absolute correlation between each variable and any discriminant function.*
highest symptom severity (CS) (mean = 42.49) and level of initial distress (IN_DIST) (mean = 1.67). Psychotherapists’ assessments of TRs’ life functioning (TLF) concurred with the patients’ assessments (mean = 46.68). Conversely, NGTRs report relatively high levels of well-being (CWB) (mean = 56.66) and perceived life functioning (CLF) (mean = 54.82), and lower levels of symptom severity (CS) (mean = 56.21) and initial distress (IN_DIST) (mean = 2.23) (although, as previously noted, this mean score still suggests patients were feeling “very” distressed). Again, therapists’ assessments of patient life functioning are in agreement with those of patients’ (TLF) (mean = 50.45). TNRs fall in between TRs and NGTRs within all four realms.

Factor 2 makes a very small contribution to the variance, accounting for only 2% (eigenvalue = .022), which causes any interpretations tentative at best. Consistent with the suggestion of a research expert (Z. Martinovich, personal communication, January, 2002), according to the loading matrix therapeutic bond (TB) and Axis II diagnosis (DX), in combination with global assessment (GAS), do make a contribution to treatment outcome classification. Indeed, therapeutic bond (TB) and Axis II diagnosis (DX) are more highly correlated with outcome prediction than the negatively-correlated global assessment score (GAS), which was also found to significantly differentiate between groups. Clearly, Factor 2 should be interpreted cautiously. Nonetheless, considering that the therapeutic bond and Axis II pathology tend to both be associated with matters of interpersonal relationships, and the success with which individuals are able to form attachments, and given that the negative correlation of global assessment suggests that the lower the GAS score the more the
variable contributes to differentiation, it is possible that Factor 2 is tapping an interpersonal, or character construct (Z. Martinovich, personal communication, January 11, 2002). Confounds in the data, discussed earlier, may prevent the therapeutic bond (TB) and Axis II diagnosis (DX) variables from making a greater contribution to successful classification prediction. In other words, the finding that Factor 2 adds little beyond Function 1 may be the result of a power problem caused by a high level of error variance introduced in the data collection process (Z. Martinovich, personal communication, January 11, 2002).
Table 12

Classification of Treatment Response in Primary Analysis of Sample 1

<table>
<thead>
<tr>
<th>Actual group membership</th>
<th>Predicted group membership</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Negative</td>
<td>Treatment</td>
<td>Treatment</td>
<td>Treatment</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>treatment</td>
<td>nonresponders</td>
<td>responders</td>
<td>nonresponders</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>responders</td>
<td>(NGTR)</td>
<td>(TNR)</td>
<td>(TR)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Negative treatment responders</td>
<td>38</td>
<td>16</td>
<td>42.1</td>
<td>17</td>
<td>44.7</td>
<td>5</td>
</tr>
<tr>
<td>(NGTR)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment nonresponders</td>
<td>213</td>
<td>10</td>
<td>4.7</td>
<td>148</td>
<td>69.5</td>
<td>55</td>
</tr>
<tr>
<td>(TNR)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment responders (TR)</td>
<td>199</td>
<td>1</td>
<td>.5</td>
<td>58</td>
<td>29.1</td>
<td>140</td>
</tr>
</tbody>
</table>

Note. Overall percentage of correctly classified cases = 67.6

The linear combination of the scores on the selected predictor variables leads to the successful classification of participants into three treatment-outcome categories (TR, TNR, NGTR), as presented in Table 12. Overall, the computer-generated classification algorithm (discriminant function equation $D = B_0 + B_1X_1 + B_2X_2 + \ldots + B_pX_p$, where $X$ is the value of the predictor and $B$ is an estimated coefficient derived from the data) (Noursis, 1990, p. B-6) accurately classified 67.6% of Sample 1 participants into treatment outcome groups. Consistent with the preliminary analysis conducted on the total research sample ($n = 900$) prior to random assignment into two
study samples, the TR and TNR groups are roughly equivalent in size (n = 199 and n = 213, respectively), while the NGTR group is smaller than these two groups by approximately one-fourth (n = 38).

The highest rate of prediction error did occur within the NGTR category, with 44.7% of actual NGTRs being misclassified as TNRs. The lowest rate of classification error occurred within the TR category, with only .5% of actual NGTRs being categorized as TRs. Only 13.2% of those projected to respond to treatment (predicted TRs) actually deteriorated during treatment (actual NGTRs). Thus, the most successful classification rate occurred with TRs (70.4% accurately predicted) and TNRs (69.5%), suggesting that the model is perhaps most accurate in identifying treatment responders and nonresponders, and is least accurate in identifying negative treatment responders. Nonetheless, a 42.1% hit rate for NGTRs was achieved. Moreover, of the 27 patients predicted to experience negative treatment response (NGTR), 26 actually did not respond to psychotherapy treatment, demonstrating either nonresponse (TNR) (10 patients) or negative response (TR) (16 patients). Thus, those predicted to experience negative response (TR) had only a 4% (1 in 27) chance of actually improving during psychotherapy treatment. Thus, using the algorithm derived, prediction of negative treatment response was a dire prediction indeed, indicating a less than 5% chance of success in psychotherapy treatment (Z. Martinovich, personal communication, January 11, 2002).
Post hoc analyses.

In order to ascertain the specific predictors that played a role in the separation of the three groups, a series of post hoc analyses was conducted (Tabachnik & Fidell, 1989). Specifically, pairwise comparisons of the treatment outcome groups using Tukey’s honestly significant different test ($p < .05$) (Stice et al., 1998) were conducted to determine the variables that differentiated significantly between the three outcome groups (TR, TNR, NGTR). Results of the series of analyses are presented in Table 13.
### Table 13

Mean Scores on Predictor Variables as a Function of Treatment Outcome Group Classification

<table>
<thead>
<tr>
<th>Predictor variables</th>
<th>Treatment Responder (TR)</th>
<th>Treatment Nonresponder (TNR)</th>
<th>Negative Treatment Responder (NGTR)</th>
<th>Post hoc</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Current well-being (CWB)</td>
<td>39.94_{a,b,c}</td>
<td>9.07</td>
<td>46.80_{a,b,c}</td>
<td>9.15</td>
</tr>
<tr>
<td>Symptoms (CS)</td>
<td>42.49_{a,b,c}</td>
<td>9.49</td>
<td>49.00_{a,b,c}</td>
<td>8.16</td>
</tr>
<tr>
<td>Current life functioning, client-rated (CLF)</td>
<td>43.48</td>
<td>8.82</td>
<td>49.26_{a,b,c}</td>
<td>7.71</td>
</tr>
<tr>
<td>Initial distress (IN_DIST)</td>
<td>1.67_{a,b}</td>
<td>.61</td>
<td>1.99_{b}</td>
<td>.65</td>
</tr>
<tr>
<td>Perceived difference in general functioning (DGF)</td>
<td>6.88_{a,b}</td>
<td>.83</td>
<td>6.86_{b}</td>
<td>.87</td>
</tr>
<tr>
<td>Current life functioning, therapist-rated (TLF)</td>
<td>46.68_{a,b}</td>
<td>7.40</td>
<td>48.43_{b}</td>
<td>7.44</td>
</tr>
<tr>
<td>Therapeutic bond (TB)</td>
<td>64.34</td>
<td>5.20</td>
<td>63.88</td>
<td>6.29</td>
</tr>
<tr>
<td>Axis II diagnosis (DX)</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Global assessment score (GAS)</td>
<td>43.04_{a,b}</td>
<td>8.50</td>
<td>45.38_{b}</td>
<td>8.07</td>
</tr>
<tr>
<td>Session number, 3rd assessment (SN)</td>
<td>12.72_{a}</td>
<td>5.00</td>
<td>13.53</td>
<td>5.51</td>
</tr>
</tbody>
</table>

Note. Means with the same subscript are significantly different. For all variables except TB, DGF, and SN, higher scores indicate healthier functioning (including INIT_D, i.e., higher scores indicate less distress). For TB, higher scores indicate stronger bond. For DGF, higher score indicates greater agreement between therapist and patient in view of functioning; lower score suggests patient perceives him/herself as functioning better than therapist does. Higher SN indicates more sessions attended. All pairwise comparisons were made using the Tukey honestly significant difference multiple comparison test, \( p < .05 \).
Results of pairwise comparisons confirm that TRs, TNRs, and NGTRs are distinctly/significantly different groups on several predictor variables. Three predictor variables differentiate significantly among all three (TR, TNR, NGTR) treatment outcome groups: current well-being (CWB), symptom severity (CS), and client-rated life functioning (CLF). The results further suggest that on these variables, TRs, TNRs, and NGTRs represent a range of functioning falling along a continuum. Specifically, TRs report significantly lower levels of well-being (CWB), lower levels of life functioning (CLF), and higher levels of symptoms (CS) than both TNRs and NGTRs. TNRs differ significantly from TRs and NGTRs on the variables but experience moderate levels of impairment (CLF, CWB) and symptom severity (CS). NGTRs report significantly higher levels of well-being (CWB) and life functioning (CLF), with lower levels of symptom severity (CS), in comparison with both TRs and TNRs. Thus, with regard to current well-being (CWB), symptom severity (CS), and client-reported life functioning (CLF) the groups fall along a relative continuum, with NGTRs functioning at the highest level, TNRs functioning within the mid-range, and TRs functioning at the relative lowest level (Stice et al., 1998).

Several of the predictor variables set the TRs apart as a group distinct from the TNRs and NGTRs. TRs differ significantly from both TNRs and NGTRs in initial distress (IN_DIST); specifically, TRs report significantly higher levels (at the “extreme” level) of distress than participants in the other groups. TNRs and NGTRs do not differ significantly in initial distress (IN_DIST) (with both groups at the “very distressed” level). Next, TRs differed significantly for TNRs and NGTRs in the degree
to which their perception of their general functioning differed from that of their psychotherapist (DGF). Results indicate that TRs tended to be in closer agreement with their therapist regarding their general functioning (DGF) than both TNRs and NGTRs. In comparison with TRs, TNRs and NGTRs tended to perceive their general functioning as being better than their therapists perceived them to be functioning (DGF). TNRs and NGTRs did not, however, differ significantly from each other in the extent to which they disagreed with their therapists on this variable (DGF). Ironically, psychotherapists perceived TRs as experiencing significantly greater general functional impairment (DGF) in their everyday lives in comparison with TNRs and NGTRs, and TRs agreed with this assessment, while TNRs and NGTRs were not only perceived by therapists as being higher in general functioning (DGF), but TNRs and NGTRs disagreed with their therapists, rating themselves as even higher in general functioning than their therapists did (DGF). Thus, not only did TNRs and NGTRs perceive themselves as functioning at more effectively than their therapists rated them, but their therapists also rated them as being higher in functioning to begin with than their TR counterparts.

It is not surprising, then, that TRs also differed significantly from TNRs and NGTRs in the therapist’s rating of global functioning (GAS). As a group, TRs were rated with significantly greater global impairments in functioning (lower GAS scores) than TNRs and NGTRs, while TNRs and NGTRs were not rated significantly differently within this realm. It is important to note, however, that with GAS scores (which correspond to DSM-IV, 1994, GAF scores) ranging from 43.04 to 46.76,
patients in all three groups were viewed by their therapists as experiencing "serious symptoms... or... serious impairment in social, occupational, or school functioning" (DSM-IV, 1994, p. 32) at the beginning of treatment. The fact that mean GAS scores at treatment onset fell within a clinically similar, albeit statistically significantly different, range indicates that patients in all three groups (TR, TNR, NGTR) began treatment at generally the same level of therapist-rated clinical impairment (S. Felgoise, personal communication, January, 2002). This finding also suggests that the phenomenon of "regression to the mean" does not solely account for the improvement seen in TRs. Consistent with the findings of Mohr et al. (1990), this also supports the hypothesis that NGTRs are a clinically different group that defies the typical regression to the mean process.

Interestingly, despite ratings of relatively greater general impairment on the part of both TR patients and their therapists (DGF), TRs participated in significantly, and consistently fewer ($M = 12.72$, $SD = 5.00$) sessions (SN) than did NGTRs ($M = 15.71$, $SD = 10.32$). This finding suggests that TRs not only responded to psychotherapy treatment while NGTRs did not, but the TR group responded significantly more quickly to treatment than NGTRs did, and did so on a relatively consistent basis.
Following the same procedures outlined for Study 1, participants in Study 2 were selected for inclusion in the study, categorized according to treatment outcome status into three groups (TR, TNR, NGTR), and their treatment outcome scores estimated using a hierarchical linear modeling procedure. For the purpose of empirical cross-validation, Sample 2 was submitted to a standard discriminant function analysis using the same predictive algorithm applied to the participant sample in Study 1. The accuracy of the selected predictor variables submitted to the algorithm was then determined based on the extent to which participants were successfully classified into one of the three unique criterion groups (TR, TNR, NGTR).

Outcome

Given that "it is often desirable to know how well the coefficients generalize to a new sample of cases because they usually work too well for the sample from which they were derived" (Tabachnik & Fidell, 1989. p. 545), Sample 2 was used to test the veracity of the algorithm derived in Study 1 in a cross-validation procedure.
The results of the application of the algorithm derived in Study 1 to the scores of participants in Sample 2 are presented in Table 14. Table 12, which displays the classification outcome results for Study 1, is reprinted directly below Table 14 so that outcome results can conveniently be compared.
Table 14

Validation of Classification Analysis for Treatment Outcome Group Membership

<table>
<thead>
<tr>
<th>Actual group membership</th>
<th>n</th>
<th>n</th>
<th>%</th>
<th>N</th>
<th>%</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative treatment responders (NGTR)</td>
<td>55</td>
<td>11</td>
<td>20</td>
<td>40</td>
<td>72.7</td>
<td>4</td>
<td>7.3</td>
</tr>
<tr>
<td>Treatment nonresponders (TNR)</td>
<td>191</td>
<td>6</td>
<td>3.1</td>
<td>132</td>
<td>69.1</td>
<td>53</td>
<td>27.7</td>
</tr>
<tr>
<td>Treatment responders (TR)</td>
<td>204</td>
<td>1</td>
<td>.5</td>
<td>76</td>
<td>37.3</td>
<td>127</td>
<td>62.3</td>
</tr>
</tbody>
</table>

Note. Overall percentage of correctly classified cases = 60.0

Classification of Treatment Response in Preliminary Analysis (Table 12, reprinted)

<table>
<thead>
<tr>
<th>Actual group membership</th>
<th>n</th>
<th>n</th>
<th>%</th>
<th>n</th>
<th>%</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>NGTR</td>
<td>38</td>
<td>16</td>
<td>42.1</td>
<td>17</td>
<td>44.7</td>
<td>5</td>
<td>13.2</td>
</tr>
<tr>
<td>TNR</td>
<td>213</td>
<td>10</td>
<td>4.7</td>
<td>148</td>
<td>69.5</td>
<td>55</td>
<td>25.8</td>
</tr>
<tr>
<td>TR</td>
<td>199</td>
<td>1</td>
<td>.5</td>
<td>58</td>
<td>29.1</td>
<td>140</td>
<td>70.4</td>
</tr>
</tbody>
</table>

Note. Overall percentage of correctly classified cases = 67.6
Results of the cross-validation analysis suggest the classification algorithm derived in Study 1 was able to successfully predict treatment outcome group membership in Study 2, albeit at a less precise rate. Overall, 60.0% of the cases submitted to the algorithm were successfully classified. Upon closer examination of the classification results, a pattern of accurate classification versus misclassification similar to that demonstrated in Study 1 is noted. NGTRs were the most challenging to accurately classify, with a hit rate of only 20%. The greatest number of misclassifications for this group occurred in the TNR group – 72.7% of those who actually deteriorated in treatment were misclassified into the TNR category. As in Study 1, this represented the highest rate of misclassification.

Unlike the results of Study 1, the highest rate (69.1%) of accurate classification occurred within the TNR group, while 62.3% of TRs were correctly assigned to the responder group. The lowest rate of misclassification continued to occur within the TR group, with only one TR classified into the NGTR group.

The general pattern of findings suggests that using the algorithm derived in Study 1, those predicted to respond to treatment (TR) are quite likely to experience improvement, and highly unlikely to deteriorate (NGTR) during treatment, although there is approximately a one-third chance they will remain at their baseline level (TNR) of self-rated global functioning (MHI) (Z. Martinovich, personal communication, January 11, 2002). On the other hand, classification as a potential negative responder (NGTR) is a “dire” prediction, given that those predicted to deteriorate in treatment will either become worse (NGTR) or stay the same (TNR) during the treatment process.
17 out of 18 times (94% of the time) (Z. Martinovich, personal communication, January 11, 2002). Those predicted to be TNRs on the basis of their initial Compass scores should still be considered to be at high risk for treatment failure, given that 16% of those classified as TNRs will actually experience negative response (NGTR) and 53% will experience no change (TNR) from their baseline global functioning (MHI). Still, 31% of patients predicted to experience treatment nonresponse (TNR) will go on to improve during treatment (TR). Thus, TNRs seemed to represent a “gray area” in which accurate treatment outcome prediction is much more challenging and far less consistently accurate.
CHAPTER 4 – DISCUSSION

The present study explored the little-researched area of treatment nonresponse and negative response. For a number of reasons, the thrust of psychotherapy treatment outcome research has been focused on demonstrating the efficacy and effectiveness of psychotherapy treatment. While this is an extremely important endeavor, with the rapidly-mounting evidence that treatment is effective for most people who avail themselves of it, it seems that the time has come to shift the focus of investigation to exploring the factors involved in treatment nonresponse and negative response.

Based on a very small body of literature, as well as clinical intuition, it was hypothesized that treatment responders (TRs), nonresponders (TNRs), and negative responders (NGTRs) would represent three different groups of individuals with specific traits and characteristics. Consistent with the hypotheses posed, at the outset of treatment TRs reported higher symptom severity (CS), experienced lower client- and therapist-rated life functioning (CLF, TLF), agreed more closely with their psychotherapists in their assessment of their own general functional impairment (DGF), and were judged by their psychotherapists to be more significantly globally impaired than other patients (GAS).

Further, it was believed at the outset of the study that treatment nonresponders (TNRs) would demonstrate scores in the mid-range of treatment responders (TRs) and negative responders (NGTRs) on all predictor variables except client-rated life functioning (CLF), on which it was thought their scores would be highest. Consistent
with the hypotheses posed, TNRs were found to have significant scores falling between the average scores of TRs and NGTRs on two predictor variables, including well-being (CWB) and symptom-severity (CS). Contrary to predictions, TNRs’ life-functioning (CLF) scores were not higher than TRs and NGTRs, but rather were in the mid-range of the groups for this variable as well. These findings suggested that TNRs represent a moderately-distressed group of outpatients, with perhaps little motivation to change during treatment because their level of impairment was not so distressing as to compel them to change.

While this may be the case, the scores of TNRs were not significantly different from those of NGTRs on several variables, suggesting that the two groups of patients may be more alike, in some ways, than was originally thought. Specifically, TNRs and NGTRs did not differ in their reported level of initial distress (IN_DIST), in the difference between their perception of their general functioning and the perception of their therapist (DGF), and in the therapist’s rating of their life- and global functioning (GAS and TLF). TNRs did, however, differ significantly from TRs on these variables. These findings suggest that, in general, TNRs and NGTRs are more alike, and that TNRs are significantly different from TRs in several domains.

Last, consistent with the hypotheses posed, NGTRs reported significantly lower symptomatology (CS) than either of the other two outcome groups (TR, TNR). Contrary to hypotheses, NGTRs reported significantly higher life-functioning scores (CLF) than did TNRs and TRs. NGTRs also reported significantly higher levels of well-being (CWB) than did TNRs and TRs, as well as lower levels of initial distress.
Perhaps most surprising was the finding that at treatment outset, therapists rated NGTR's global- and life-functioning (GAS and TLF) as being significantly higher than TR's global and life-functioning (GAS and TLF). The finding that Axis II diagnosis (DX) and therapeutic bond (TB) scores did not significantly differentiate any of the groups (though both did load on the structure matrix of the discriminant function analysis) was also surprising, particularly since the general description of NGTRs is suggestive of character pathology (Mohr et al., 1990; Z. Martinovich, personal communication, January 11, 2002).

An overall assessment of the patterns found suggests that treatment responders (TRs) experience high levels of symptoms (CS), distress (CWB, IN_DIST), and functional impairment (CLF), which lead them to seek treatment. Their therapists also perceive these patients as being acutely impaired (TLF, GAS, DGF), and their assessment of the client's general functioning concurs with the client's perception (DGF). Treatment responders (TRs) seem to respond quickly to psychotherapy, on a consistent basis. This profile brings to mind the insightful, self-aware client who is in an acute state of crisis but who rapidly responds to treatment and returns to normal functioning with assistance from a psychotherapist.

Negative treatment responders (NGTRs), on the other hand, tend to report less distress (IN_DIST), less functional impairment (CLF, DGF), and less-symptomatology (CS) than do their TR counterparts. Although they rate themselves as functioning more successfully in life than their therapists do (DGF), their therapists also perceive them as being less functionally and globally impaired (TLF, DGF, GAS) than their TR
counterparts. It is quite possible, as suggested by Mohr et al. (1990) and others, that these are characterologically disturbed individuals who are less self-aware than most; and are, perhaps, compelled to seek treatment at the urging of significant others or as a result of some set-back in their lives that is incomprehensible to them (i.e., loss of a job, problems with a spouse). If this is the case, then the significantly higher ratings of these patients offered by therapists suggest misdiagnosis, or misjudgement, on the therapist’s part, in that the therapist does not recognize the level of the client’s pathology at the outset.

Alternate scenarios, however, are also possible. For example, it is possible that NGTRs seek treatment at the early part of a “downward spiral” that psychotherapy is not able to intervene in, while TRs may seek treatment following a long period of impairment (i.e., “having hit bottom,”) (S. Felgoise, personal communication, January, 2002), with psychotherapy serving as the springboard for what may have been an inevitable improvement in functioning.

The TNR group is much more difficult to succinctly profile. It is possible that this group consists of different types of patients, some not in significant distress and, therefore, less motivated to change, some on the verge of a downward spiral, and some at a crossroads that eventually leads to recovery. It is clear that further research will be necessary in order to rapidly assess which patients are most likely to experience response, nonresponse and negative response, and to develop treatments appropriate for each group.
Limitations

Several significant limitations to the present research must be noted. One of the drawbacks to archival research is the possibility that data will be lost, found to be missing, or found otherwise uninterpretable; in the present research, data loss was a significant problem. The lack of demographic data prevented a truly meaningful comparison of the total research group with Sample 1 and Sample 2. It also prevented the comparison of treatment outcome groups on these variables to explore the potential role of specific demographic characteristics in successful treatment outcome classification. In addition, the generalizability of the findings is truly limited, given that the population studied cannot be reliably described.

Also, the loss of codes that would allow psychotherapists to be distinguished from one another (without personal identity being revealed) made it impossible to ascertain whether or not specific therapists were particularly effective or ineffective (please refer to Binder & Strupp, 1997; Brown & Barlow, 1995; Dush, Hirt, & Schroeder, 1989; Hattie, Sharpley, & Rogers, 1984; and Schaffer, 1982 for relevant literature addressing the importance of the individual psychotherapist in treatment outcome). This unanticipated problem also hopelessly confounded the therapist’s degree status variable, in that it was impossible to determine whether certain therapists were overrepresented in the sample, whether or not they were particularly effective or ineffective, and the specific degree status of effective and less effective psychotherapists.
Next, as previously discussed, the archival data was gathered under suboptimal conditions for research. As discussed throughout the manuscript, significant confounds were introduced by the potential motivations of the therapist and the client in the data they provided. Given that therapists directly gathered completed questionnaires from clients, clients may have been less inclined to honestly respond to questions regarding the therapist's performance and the therapeutic bond. Participants may also have exaggerated the severity of their emotional and psychological distress for fear that appearing "too healthy" would end authorization for treatment by the managed care organization. Therapists may also have exaggerated the severity of the patient's impairments for the same reason. Conversely, psychotherapists may have been quite hesitant to report Axis II diagnoses for fear that the client might be harmed by the stigma associated with this type of pathology.

Last, the present study excluded patients who required complete or partial psychiatric hospitalization during the course of outpatient treatment. Without a doubt, the situation in which a patient's condition deteriorates to the point where more intensive treatment is needed represents a clear and extreme case of treatment nonresponse or negative response.
Directions for Future Research

Additional research into the treatment nonresponse and negative treatment response phenomenon is clearly needed, so that specific interventions can be developed. First, research examining the role of gender, marital status, socioeconomic status, and ethnicity in the treatment nonresponse and negative response phenomenon would greatly improve the generalizability of the findings. Second, given the literature suggesting the importance of the individual therapist in both treatment success and treatment failure, investigations incorporating the therapist's overall effectiveness as a variable are likely to contribute significantly to the literature. Last, the role of specific Axis I and Axis II diagnoses in treatment nonresponse and negative response is important for truly elucidating this phenomenon. Given that certain personality patterns and styles of relating may be associated with the specific disorders individuals eventually develop, it is likely that this factor will prove important in understanding and intervening in treatment nonresponse and negative response.
References


*Journal of Counseling Psychology, 42* (1), 55-64.


Luborsky, L. (1995). Are common factors across different psychotherapies the main explanation for the dodo bird verdict that “Everyone has one so all shall have prizes”? *Clinical Psychology: Science and Practice, 2* (1), 106-109.


Luborsky, L., Singer, B., & Luborsky, L. (1975). Comparative studies of psychotherapies: Is it true that “Everyone has one and all must have prizes?” Archives of General Psychiatry, 32, 995-1008.


## APPENDIX 1

**Criteria for Study Exclusion and Number of Patients Excluded from Original Data**

**Set (N = 23,500)**

<table>
<thead>
<tr>
<th>Exclusion criteria</th>
<th>Number of patients excluded</th>
<th>% (N = 23,500)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completed less than 3 Compass questionnaires (or date of completion and session number sequencing incongruity)</td>
<td>18,332</td>
<td>.78</td>
</tr>
<tr>
<td>Sought treatment from &gt; 1 therapist during treatment episode</td>
<td>1,584</td>
<td>.067</td>
</tr>
<tr>
<td>Required more intensive treatment (partial or complete hospitalization)</td>
<td>347</td>
<td>.014</td>
</tr>
<tr>
<td>Referred for additional treatment (i.e., couple or family therapy, substance abuse)</td>
<td>135</td>
<td>.005</td>
</tr>
<tr>
<td>Already in treatment at Integra service enrollment</td>
<td>373</td>
<td>.016</td>
</tr>
<tr>
<td>Procedural confound (Younger than 18 or older than 65 years old; Compass administered after 3rd session; &gt;1 month between initiating treatment calling Integra with intake information; &lt;6 months between episodes of treatment; attended sessions &lt; once per month)</td>
<td>595</td>
<td>.025</td>
</tr>
<tr>
<td>Data not found in utilization review database</td>
<td>456</td>
<td>.019</td>
</tr>
<tr>
<td>Compass dates of service do not correspond with utilization review database dates</td>
<td>738</td>
<td>.031</td>
</tr>
</tbody>
</table>