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PSYCHOTHERAPY OUTCOME AS A FUNCTION OF THERAPIST-PATIENT
MATCHING ON SELECTED VARIABLES

The University of Arizona

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PSYCHOTHERAPY OUTCOME AS A FUNCTION OF
THERAPIST-PATIENT MATCHING
ON SELECTED VARIABLES

by
Sharon Jane Calvert

A Dissertation Submitted to the Faculty of the
DEPARTMENT OF PSYCHOLOGY
In Partial Fulfillment of the Requirements
For the Degree of
DOCTOR OF PHILOSOPHY
In the Graduate College
THE UNIVERSITY OF ARIZONA

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THE UNIVERSITY OF ARIZONA
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As members of the Final Examination Committee, we certify that we have read
the dissertation prepared by Sharon Jane Calvert

entitled Psychotherapy Outcome as a Function of Therapist-Patient

Matching on Selected Variables

and recommend that it be accepted as fulfilling the dissertation requirement
for the Degree of Doctor of Philosophy.

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A handwritten signature in dark ink, appearing to be 'A. J. C.', is written over a horizontal line.

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ABSTRACT

It was proposed that the optimal matching of psychotherapy approach to selected patient characteristics results in improved treatment outcome. Three patient dimensions were identified as contributing specific predictive power in determining the effectiveness of several types of treatment: symptom complexity, style of psychological defense, and reactance potential. Symptom complexity level was held relatively constant by studying a sample of psychiatric inpatients, who were admitted to a teaching hospital for short-term care and treated in individual psychotherapy by psychiatric residents and psychology interns. Patient defensive style was assessed in terms of an internalization/externalization ratio, derived from patient MMPI scores, and was hypothesized to differentially affect outcome depending on the degree of patient-therapist match in terms of an internalized versus externalized focus of therapeutic approach. Patient reactance potential was assessed by the Control Wanted subscale of the FIRO-B, and was hypothesized to be optimally matched by varying levels of therapy directiveness. Therapeutic approach was assessed by scores on the Theoretical Orientation Questionnaire.

Outcome was assessed by three independent sources: therapist discharge ratings of global improvement, pre- and posttreatment patient ratings on a standardized symptom index, and nurses' ratings of ward behavior at the beginning and end of treatment. These measures

constituted the dependent variables in a series of multiple regression analyses, which also included a number of patient background and collateral treatment variables as potential predictors. Results indicated that, after accounting for pretreatment levels of disturbance, the match between patient defensive style and internal/external focus of therapeutic approach was a significant predictor of treatment outcome. The degree of patient-therapist match on this dimension accounted for 9% and 8% of the variability in posttreatment measures of patient symptomatology and ward behavior, respectively. Matching with respect to patient reactance potential and therapy directiveness was not seen to affect outcome, and no effects due to matching were observed for therapists' ratings. Results are discussed in terms of validity and reliability of the ratings, problems in assessment from the different vantage points of patient/therapist/observer, and biases deriving from the use of self-report instruments.

CHAPTER 1

INTRODUCTION

The present study was conceived in order to test the hypothesis that the prescriptive matching of therapist and patient on selected dimensions will result in improved psychotherapy outcome. This assumption is based on the idea that positive treatment effects are maximized when psychotherapy technique is strategically implemented, according to prescriptive rules based on an assessment of specific patient attributes. This potential enhancement of therapy outcome by the application of a "systematic eclectic psychotherapy" (Beutler, 1983) is seen to be an important issue on the forefront of contemporary psychotherapy outcome research.

This consideration of "what works with whom" reflects the latest formulation of the long-standing research question regarding the relative effectiveness of psychotherapy. The initial question posed by researchers was, "Is psychotherapy effective?", and much of the outcome research over the past thirty years has been devoted to confirming or refuting the first negative conclusion, that "the figures fail to show any favorable effects of psychotherapy" (Eysenck, 1952, p. 323). The next several decades were characterized by confusion and contradiction, with the appearance of major reviews claiming both to support (e.g., Rachman, 1971) and refute (Meltzoff & Kornreich, 1970; Bergin & Lambert, 1978) Eysenck's pessimistic conclusion. This debate is traced by Smith,

Glass and Miller (1980), who conclude from their own meta-analysis of 475 controlled studies that "the effect of psychotherapy is clearly substantial" (p. 88).

The next popular question to occupy researchers in the area of outcome research was, "Which type of therapy is most effective?", and numerous comparative studies have attempted to demonstrate differential outcome for various psychotherapy approaches. The general conclusion to arise from this pursuit, however, has been the "recurrent finding that there is no single technique that is consistently superior to any other" (Strupp, 1977, p. 5). (The reader is referred to Luborsky, Singer and Luborsky, 1975, for a comprehensive review of this body of literature.) Eventually this effort was abandoned as researchers began to heed such authors as Kiesler (1966), who cautioned against the assumptive "myths" underlying much outcome research regarding the presumed "uniformity" of therapist, therapy and patient characteristics under investigation. Others began to advocate the need for identification of non-specific factors (Frank, 1971) contributing to successful outcome in psychotherapy, and the need to determine "to what extent are therapeutic effects the result of specific techniques...as opposed to so-called non-specific factors" (Strupp & Hadley, 1979, p. 1125).

Although Strupp (1977) notes that "we are beginning to recognize and take seriously the extraordinary complexity of the therapeutic influence" (p. 8), most outcome research to date has been directed toward isolating specific variables related to characteristics of the client, the therapist, or of the techniques employed, with little

examination of the interplay between them. An emerging awareness of the inherent complexity of these factors, and their apparent inter-relatedness, has led to a gradual reformulation of the primary research question: "What specific therapeutic interventions produce specific changes in specific patients under specific conditions?" (Strupp & Bergin, 1967, p. 20). This call for an examination of interactive effects has been taken up by a number of authors, such as Frank (1981), who advocates a research approach which examines the efficacy of therapeutic techniques in the context of "their appropriateness to personal characteristics of patient and therapist, whose interactions are the major determinants of outcome" (p. 476). Similarly, Strupp (1977) notes that "any therapeutic technique is firmly embedded in and thoroughly intertwined with the therapist's personality and the total history of a particular patient-therapist interaction including its current context" (p. 8).

Therefore, the present study was designed to address this question of "what works with whom", by isolating a number of specific dimensions of the therapist-therapy-client interaction and examining their effects on outcome. It was hypothesized that successful therapeutic outcome would be related to the effects of "matching" of patient and therapist, along specific dimensions which have been theoretically and empirically demonstrated to be relevant in this context. Before explicating the specific dimensions and hypotheses addressed in this study, it would be useful to review in more depth the research literature to date on the effects of selective matching of therapist and client variables.

Matching: Review of the Literature

The effort by researchers to discover combinations of therapist and client variables that are predictive of positive therapeutic outcome is usually traced to the work of Whitehorn and Betz (1954, 1960). Since their investigations with the A-B scale, designed to differentiate therapists in terms of their ability to work well with schizophrenic patients, a sizeable number of studies have been conducted in an effort to discover optimal matches of client and therapist dimensions.

The attempt to derive such matches, however, has been impeded by the lack of a definitive theoretical or empirical basis for identifying the relevant dimensions of client and therapist characteristics, and for specifying the nature of the relationship between them. It has not been readily apparent, for example, whether the pursuit of such matches should be directed toward explorations of similarity or dissimilarity between therapist and client, or perhaps both, in complex patterns of "compatibility". Nor has it been resolved whether to match patient with therapist, on the basis of personal attributes of each, or whether patient variables should be prescriptively matched on the basis of salient characteristics of the therapy, i.e., in terms of therapeutic orientation, style or technique.

To date, most research in the area of therapeutic matching has involved investigation of the effects on outcome of similarity between therapist and client, focusing primarily on dimensions of demographic characteristics, personality, cognitive functioning, and values. Some

investigators have found positive relationships between therapist-patient similarity and outcome, some have found a negative or curvilinear relationship, still others have found no relationship at all between similarity and improvement.

With respect to demographic variables, most reviews of the literature on matching (e.g., Meltzoff & Kornreich, 1970; Berzins, 1977; Parloff et al., 1978) conclude that there is no consistent evidence that matching therapist and client on background characteristics influences the outcome of psychotherapy. Effects related to sex, race, or socioeconomic status seem to be more attributable to the concomitant "attitudes and biases" of the participants (Parloff et al., 1978) and to their influence on the development of a therapeutic relationship (Berzins, 1977) than to the demographic variables themselves. The current review will consequently focus on the research to date regarding therapist-client matching on essentially non-demographic variables, addressing demographic characteristics only as they relate specifically to outcome within this context. The first studies to be addressed are characterized by their emphasis on matching clients in terms of characteristics of the therapist, rather than in terms of the therapeutic approach employed.

An early study into the effects of client-therapist personality similarity was conducted by Carson and Heine (1962), who found a curvilinear relationship between degree of similarity of MMPI profiles (considering shape only) and successful outcome. Dyads of medium similarity had the best therapeutic outcomes on a composite measure of patient satisfaction, therapist judgment, and symptom relief. The

authors concluded that positive therapeutic outcome requires enough similarity so that the therapist can adequately empathize with the patient's problems, but not so much that the therapist "over-identifies" with the patient. However, subsequent efforts to replicate this finding (Carson & Llewellyn, 1966; Lichtenstein, 1966) have proven unsuccessful, which these authors attribute to the crudeness of both the similarity measures and the outcome measures used.

Several early attempts to relate therapy outcome to similarity between therapist and client personality dimensions utilized the Myers-Briggs Type Indicator (MBTI). This instrument is based on the Jungian theory of psychological types and measures cognitive and perceptual tendencies on four bipolar scales (Extraversion vs. Introversion, Thinking vs. Feeling, Sensation vs. Intuition, Judgment vs. Perception). Although a curvilinear relationship was found between therapeutic outcome and client-therapist similarity on the MBTI in an initial study (Mendelsohn & Geller, 1963), this finding was not replicated in subsequent attempts (Mendelsohn, 1966; Mendelsohn & Geller, 1967).

A number of studies have explored the relationship between outcome and similarity of self concept, with conflicting results. Lesser (1961) found that similarity of self concept, based on a comparison of therapists' and clients' Q sorts, was negatively related to outcome. Using a similar methodology, Levinson and Kitchener (1966) found comparative similarity on the basis of Q sorts to be predictive of successful outcome.

Seemingly contradictory results have also been obtained in a number of studies which have explored the importance of "cognitive similarity" in predicting outcome. Carr (1970) found greater therapeutic improvement for patients who were similar to their therapists in terms of conceptual differentiation, measured by his own interpersonal discrimination test, than for patients whose differentiation scores were more discrepant from their therapists' scores. McLachlan (1972) used therapists' and alcoholic inpatients' responses on a paragraph completion test to obtain a measure of conceptual level, and found better improvement for patients with high conceptual level congruence with their therapists than for those in incongruent pairings.

Cognitive dissimilarity, however, has also been seen to enhance positive therapeutic outcome. Edwards and Edgerly (1970) used a semantic differential to rate therapist-client dyads as to "cognitive congruence" and found that clients in low-congruence dyads changed the most. Based on the model of cognitive functioning developed by George Kelly, Landfield (1971) used the Role Construct Repertory Test to assess therapist-patient similarity in personal constructs. Therapy outcomes were seen to be better when there was initial dissimilarity between therapist and patient in terms of content of personal constructs.

This seeming contradiction between the results of the preceeding two studies, which suggest the importance of cognitive dissimilarity between therapist and client in predicting outcome, and those of Carr and McLachlan, favoring dimensions of similarity, is addressed by Parloff, Waskow, and Wolfe (1978) in their review of therapist variables in outcome research. These authors propose a distinction between

"structural" cognitive variables (i.e., conceptual differentiation, conceptual level) and cognitive "content" variables (cognitive congruence, personal constructs). They conclude that "outcome in therapy may be enhanced if therapy participants are cognitively similar concerning the level of differentiation in their constructs, but dissimilar with respect to the content of these constructs" (p.270).

Another area of research which focuses on aspects of cognitive content is that regarding the effects of the participants' attitudes, beliefs and values on the outcome of psychotherapy. This is also another area wherein seemingly contradictory results suggest the presence of an extremely complex relationship between therapist-client dimensions of similarity/dissimilarity. Although it has been suggested that a certain degree of initial similarity in attitudes and values between therapist and client may be necessary for the establishment of a collaborative and ultimately effective therapeutic alliance (e.g., Luborsky et al., 1971, 1980; Strupp, 1981), empirical studies have also shown that it may be the differences between therapist and client belief systems which are most predictive of successful therapeutic outcome (Beutler et al., 1974, 1975).

The most consistent finding with respect to the effects of psychotherapy on clients' belief systems seems to be that positive outcome is directly related to the degree to which the patient adopts the therapists' values and attitudes over the course of treatment, i.e., value "convergence" occurs (Rosenthal, 1955; Beutler, 1971; Beutler et al., 1974, 1975; Arizmendi, 1982). In terms of global values or belief systems, however, neither similarity nor dissimilarity

has been found to be as strongly associated with improvement in therapy as has convergence, suggesting that global approaches to value assessment may be obscuring the apparently quite complex inter-relationships of multiple underlying dimensions. Beutler (1981) reviewed the research literature in this area and found that specific dimensions of value/belief systems appear to relate to outcome differentially, such that similarity in some values may be related to improvement while lack of similarity in others may be so related. Concluding that a critical dimension for matching relates to the participants' "core conflicts", for example, he proposes that an optimal therapist-client match would be on the basis of an initial dissimilarity with respect to attitudes, beliefs and values relating to interpersonal attachment and separation themes (Beutler, 1981, 1983; Beutler et al., 1973).

This idea, relating to the effects of matching in terms of values and beliefs which reflect interpersonal themes, has been pursued by a number of authors. Some of these empirical studies have focused explicitly on the potential therapeutic effects of "compatibility" or "complementarity" in selective matching of therapist and client along interpersonal dimensions. Swensen (1967) explored the effects of dyadic interaction on outcome in a study which examined client-therapist matching on the basis of Leary's (1957) dimensions of dominance-submission and love-hate. He found that there was greater client improvement when therapist and client were complementary (opposite) on dominance-submission, but little difference between numbers improved when clients were the same or the opposite on

love-hate. A replicating study which he reports also found greater improvement for therapist-client pairs which were complementary on dominance-submission, but on the love-hate dimension improved outcome was associated with similarity between client and therapist scores.

Another study focusing on the effects of interpersonal values was conducted by Sapolsky (1965). He assessed the compatibility of therapist-patient dyads with the Fundamental Interpersonal Relationships Orientation Inventory (FIRO-B), which deals with how one treats others and likes to be treated by others. A compatibility index, derived for each therapist-patient pair with respect to the interpersonal needs of affection, inclusion, and control, was found to be positively related to patient improvement. Mendelsohn and Rankin (1969) also found a relationship between compatibility on the FIRO-B and outcome, but only for dyads containing female clients. Gassner (1970) studied the effects of FIRO-B compatibility between pastoral counselors and psychiatric inpatients and found no significant results with respect to outcome as measured by nurses' ratings of behavioral adjustment. Patient ratings of the therapy relationship, however, were found to be more favorable for compatibly-paired dyads than for incompatible pairings in this study.

All of the preceding studies utilize what Berzins (1977) designates as a "symmetrical" approach, i.e., both participants are assessed on the same pre-therapy variable or variables, in the attempt to find dyadic relationships which are predictive of patient improvement. Less commonly have researchers employed an "asymmetrical" perspective, wherein the independent variables assessing therapist and

patient characteristics are categorically dissimilar. Most of these latter approaches involve an examination of the interactive effects of therapeutic technique, orientation or style, on such patient-relevant variables as diagnosis, symptom patterns, defensive styles or personality traits. The earliest and most thoroughly pursued example of such an approach would be the effort, initiated by Whitehorn and Betz (1954), to relate the therapist "A-B" dimension to patient symptomatology. The reader is referred to Razins (1977) and Dent (1978) for reviews of this vast body of literature, which is not seen to be directly relevant in the present context, relating to psychotherapy with predominantly non-psychotic patient populations.

The remainder of the studies addressed here reflect this asymmetrical type of approach; the majority of these examine the effects of patient-therapy matching, rather than focusing on patient-therapist matching as in the previously described research. One such study was conducted by DiLoreto (1971), contrasting the efficacy of desensitization, rational emotive therapy, and client-centered therapy (with placebo and no treatment controls) in alleviating interpersonal and general anxiety in introverts and extraverts (assessed by the Myers- Briggs Type Indicator). While subjects in all three treatment groups showed more improvement than controls, systematic desensitization appeared equally effective with introverts and extraverts, whereas rational emotive therapy was seen to be more effective with introverts and client-centered therapy more effective with extraverts.

Abramowitz, Abramowitz, Roback and Jackson (1974) assessed patients' locus of control with the Rotter I-E (internal-external) scale and exposed them to different forms of group therapy designated as "relatively directive" and relatively nondirective". The findings appeared to indicate that patients with an external locus of control did better in the directive therapy, while internals did better with the nondirective therapy. Friedman and Dies (1974) investigated the perceptions and attitudes of internal and external clients to therapy approaches, and found that therapist directiveness was evaluated in different ways by each type, with external clients preferring a more directive approach and internal clients favoring a less directive approach.

Not to be confused with the internal-external locus of control dimension used in the preceding studies, two other investigations have examined patient symptom patterns or defensive/coping styles, which were characterized as "internalizing" or "externalizing". Stein and Beall (1971) rated patients on the basis of their symptoms or complaints as predominantly externalizers or internalizers, and found that externalizers are "less responsive to and show poorer results in therapy than do internalizers", according to therapists' ratings of outcome. Externalizers were also noted to be more denying of emotional disturbance (on the MMPI) and less likely than patients presenting internalizing symptoms to be assigned to an insight-oriented form of therapy in a psychology clinic setting.

Beutler and Mitchell (1981) classified clinic outpatients as "depressive-internalizers" and "impulsive-externalizers" on the basis

of MMPI profiles, and hypothesized differential outcome effects for these groups as a function of analytic versus experiential treatment procedures. Experiential therapy was found to produce more improvement on composite change measures than analytic therapy across patient types, and internalizing depressive patients obtained more benefit from both treatments than did impulsive externalizing types. Although the expected interaction effects were non-significant, post hoc analyses suggested that the treatment main effect was a result of the greater effectiveness of experiential therapy with impulsive externalizing patients; the combination of analytic therapy and externalizing patients appeared to produce the least positive effects. These authors also reported a tendency for externalizers to endorse fewer symptomatic complaints on the MMPI, consistent with Stein and Beall's (1971) findings.

The "Temple study" of Sloane, Staples, Cristol, Yorkston and Whipple (1975) is also noteworthy in this context for its failure to demonstrate differential outcome effects for behavioral and analytic therapies across matched outpatient samples. No significant relationship was found between successful outcome and patient personality characteristics, specific symptomatology, demographic characteristics, or level of pathology, as a function of treatment modality. However, patients who were seen as having "acting-out" syndromes (on the MMPI) were considered to show more improvement with behavior therapy than analytically-oriented psychotherapy. This is consistent with the conclusions of Beutler (1979) and Beutler and Mitchell (1981). Considering the rigor of design in the Temple study,

the-"best comparative study of psychotherapy yet carried out" (Bergin & Lambert, 1978, p. 164), it may seem reasonable to consider this a meaningful finding and evidence of some degree of specificity with respect to treatment effects.

It should be noted that, in these investigations of dimensions on which patients and therapists might be matched and the relationship of the matches to outcome, virtually all of the studies reviewed thus far have depended on a post hoc correlational approach. Very few empirical studies to date have attempted to actually match therapist and client on potentially relevant dimensions and evaluate the outcome, with two notable exceptions. These investigators have employed factor analytic techniques to the problem of matching therapeutic approach to patient characteristics, in an effort to derive prediction equations which might enhance the probability of a successful therapy outcome.

Dougherty (1974) obtained prediction equations from an analysis of multiple measures, dividing patients into three relatively homogeneous "personality" groups and therapists into two groups on the basis of their scores on the Theoretical Orientation Inventory (TOI). A priori predictions were experimentally validated by assigning patients presenting at a university counseling center to therapists on the basis of predicted "optimal" and "deterioration" matches, which were seen to produce significant mean outcome differences (on therapist satisfaction ratings) in the expected directions. The author comments on the generalizability of the methodology, if not the results, and notes that therapist-patient interactional effects were only

identifiable after patients and therapists had been separated into more homogeneous groups.

Berzins (1977), in the extensive and systematic "Indiana Matching Project", conducted a four-year effort to develop and validate a formula for the optimal combination of therapists and patients in a college clinic focusing on short-term, crisis intervention treatment. Utilizing a number of rationally and factor-analytically derived measures of patient coping styles and therapist personality dimensions, predictor scores were developed which were eventually implemented as the basis for assigning patients to therapists in the matching project. An analysis of interaction effects suggested that "dyadic complementarity along a superordinate dominance-submission dimension" (p. 243) was most facilitative of positive therapy outcome, particularly for the combination of submissive, inhibited, passive patients with dominant, expressive, and structure-offering therapists. An exception was noted with respect to one of the four patient variables, where a significant sex difference showed improvement in female patients to be associated with similarity, rather than complementarity, along the dimension of dominance-submission.

Client-Therapist Matching: Summary and Conclusions

Obviously, the results of these studies allow no sweeping conclusions. Most reviewers of the literature on client-therapist/client-therapy matching have declared this area of research to be promising, but as yet unrewarding, in the establishment of a systematic basis for specificity in the prescription of psychotherapeutic

treatment. Bergin and Lambert (1978), for example, conclude with respect to client-therapy matching that "comparative studies do not encourage the notion that prescription in psychotherapy will be achieved soon" (p. 180), and suggest that "the effort to determine what works with whom remains still more of a hope than a reality" (p. 164). Berzins (1977) considers the goal of client-therapist matching to be feasible and sees some potential for the dominance-submission dimension as a relevant variable for matching, but concludes that "there is at present no organized body of knowledge that could serve as an effective guide for implementing strategies" (p. 222). In spite of this general attitude of pessimism, however, and the continuing lack of a definitive theoretical or empirical basis for implementing prescriptive matching strategies, efforts to develop paradigms for treatment specificity through client-therapy matching have continued to evolve.

Goldstein and Stein (1976) reviewed the literature on adult individual psychotherapy and derived a model of treatment specificity which proposes the application of "prescriptive psychotherapies" to homogeneous client populations. Basing their conclusions on an extensive review of empirical outcome studies, these authors have developed a paradigm for matching treatment strategy to diagnostic classification which constitutes an ambitious attempt to develop prescriptive formulations for matching therapist/client variables.

Similarly, Beutler (1983) has evolved a "systematic eclectic psychotherapy" which allows for the prescriptive application of specific treatment strategies on the basis of relevant client dimensions. Following a critical review of comparative psychotherapy

outcome research (Beutler, 1979) three patient symptom dimensions were extracted which appeared to have specific predictive power in determining the effectiveness of psychotherapeutic treatment: symptom complexity, coping style, and interpersonal sensitivity.

Client Dimensions for Predictive Matching

The first patient dimension, symptom complexity, relates to the degree or extent of presenting psychopathology, from monosymptomatic "habit" patterns to multisymptomatic neurotiform or characterological behavior patterns. Appropriate treatment approaches, determined by this dimension of patient functioning, would range from a "narrow band" to a "broad band" focus, respectively. The remaining two dimensions explicated by Beutler can be seen to relate directly to many of the variables identified in the above literature review, and as such provide a format for the conceptual organization of these data and the basis for the present study.

The second dimension specified by Beutler is coping style, which refers to an individual's characteristic style of psychological defense in coping with conflict. This is differentiated according to whether the pattern of one's defensive behaviors can be considered to be "internalizing" or "externalizing" in function. An internalizing defensive style approaches conflict resolution by a preoccupation with internal processes (i.e., obsessional, sensitizing defenses, including intellectualization and compartmentalization). External methods of coping, on the other hand, attempt to deal with stress by the projection or external displacement of conflict (e.g., projection,

somatization and acting out). Such patterns are seen to be relatively stable over time (Welsh, 1952) and may be conceptually related to dimensions of repression-sensitization (Byrne, 1961) and extroversion-introversion (Eysenck & Eysenck, 1969).

This model proposes that a behaviorally oriented (externally focused) treatment approach will be superior to an insight or experiential (internally focused) approach, for individuals presenting externalized defensive styles. Correspondingly, clients presenting an internalizing defensive style are predicted to do better with an internally focused approach to psychotherapy. Although there are some inconsistencies in the operationalization of constructs and the results are not all conclusively significant, those studies reviewed above which investigated patient defensive styles can be seen to provide consistent support for these hypotheses (e.g., Beutler & Mitchell, 1981; DiLoretto, 1971; Sloane et al., 1975; Stein & Beall, 1971).

The remaining client dimension which Beutler proposes as relevant to the goal of prescriptive client-therapy matching is that of interpersonal sensitivity, or psychological "reactance", a concept derived from the literature on social influence and interpersonal persuasion (Brehm, 1966) and more recently applied in a clinical context (Brehm, 1976; Brehm & Brehm, 1981). Reactance refers to an individual's investment in maintaining a sense of personal control and freedom, and is manifest in the form of resistance to external attempts at persuasion or influence. This resistance to external control is more likely to take the form of an active counterphobic rebellion, rather than mere indifference or static resistance, and occurs whenever an individual

senses that his/her choices are being limited (Brehm, 1976). Apparent individual differences in "reactance potential" suggest that reactance is a trait as well as a situational state of the organism (Beutler, 1978; Brehm & Brehm, 1981).

Insofar as psychotherapy may be considered to be a process of interpersonal persuasion (Bergin, 1980; Beutler, 1978; Brehm & Brehm, 1981), a client's characteristic level of responsivity to external influence is seen to constitute a significant dimension in the consideration of appropriate treatment strategies (e.g., Tennen et al., 1981). Beutler (1979, 1983) concludes that client reactance potential is an important determinant of the amount of directiveness which may be usefully applied in the treatment process: highly reactant individuals will be likely to respond poorly to a directive therapeutic approach, whereas individuals with low levels of reactance would respond well to such directive interventions.

The concepts of reactance (Brehm, 1976) and locus of control (Rotter, 1966) have been frequently linked in the social attribution literature, and appear to function in a similar manner in many influence situations (Beutler, 1978). Support for Beutler's hypothesis, relating outcome to the interaction between patient reactance and the directiveness of therapy, is therefore seen to be provided by those studies cited above (Abramowitz et al., 1974; Friedman & Dies, 1974) which demonstrated such a relationship between directiveness and patient locus of control. To the extent that the constructs of reactance and directiveness may be seen to be conceptually related to an interpersonal dimension of "dominance-submission", indirect support may also be

inferred from those studies demonstrating positive effects on outcome for a complementary therapist-patient relationship along this dimension (Berzins, 1977; Mendelsohn & Rankin, 1969; Sapolsky, 1965; Swenson, 1967). No significant results were obtained in several other attempts to relate outcome to reactance, variously operationalized by the locus of control scale (Beutler et al., 1983) and by the "wanted control" subscale of the FIRO-B (Beutler et al., 1984). It should be noted, however, that these latter studies examined the effects on outcome of reactance alone, rather than in the context of any potential interactional effects related to therapy directiveness, which may have obscured the presence of any such relationship.

In conclusion, the literature to date suggests that there are no major differential effects of different types of psychotherapy on heterogeneous patient groups. However, differential effects have been apparent on more narrowly defined patient populations, suggesting that patient-therapist or patient-therapy matching on the basis of some dimensions of compatibility may be feasible and psychotherapeutically profitable. On the basis of the present review, the most promising approach to matching is seen to involve a tailoring of one's therapeutic approach to accommodate specific client characteristics, particularly those of interpersonal sensitivity (i.e., reactance potential) and style of psychological defense (internalizing versus externalizing).

Hypotheses

This study addresses the question of "what works with whom" by testing Beutler's (1983) model of systematic eclectic psychotherapy. This model proposes that improved outcome can be achieved by the prescriptive matching of therapeutic approach to the patient dimensions of symptom complexity, defensive style, and interpersonal reactance. In this study an attempt was made to hold symptom complexity level relatively constant by the use of a sample of psychiatric inpatients, while the effects of matching on the other two patient dimensions was examined. Specific hypotheses to be tested included the following:

1) Patients presenting with an internalizing style of psychological defense will show more improvement with therapists who favor an internally focused approach to psychotherapy than they will with therapists who are externally focused in their approach. Patients presenting externalizing defensive styles will show more gains with therapists who favor an externally focused treatment approach than they will with internally focusing therapists.

2) Patients who are highly reactant will show more treatment gains with therapists who are less directive in their psychotherapy approach than they will with therapists who are more directive in their approach. Conversely, patients with low levels of reactance will respond better to therapists employing a more directive treatment approach than they will to less directive therapists.

It was further anticipated that the effects of optimal patient-therapist matching on the specified dimensions would be additive if these effects were analyzed concurrently: patients who were optimally

matched with their therapists in terms of both reactance potential and defensive style (as specified in the above hypotheses) were expected to show more improvement than patients who were optimally matched on only one of the dimensions, the latter of whom were predicted to do better than patients who were not optimally matched on either dimension.

CHAPTER 2

METHOD

Subjects

Subjects for the present study consisted of 108 psychiatric inpatients who had been admitted to a teaching hospital for short-term inpatient care. They were selected from a larger pool of subjects on whom data were collected in 1980 and 1981, as part of an ongoing research project on inpatient group psychotherapy (Beutler et al., 1984). At that time, data were obtained on 176 essentially consecutively admitted psychiatric inpatients, representing approximately 60% of total ward admissions for the period. Subjects who signed informed consent forms and completed assessment materials at both admission and discharge were included. Patients were excluded from the initial study if they could not speak English, were younger than age 16, presented with an organic brain syndrome, or were too disorganized at admission to complete the initial assessment battery.

The present study included those 108 patients from the original sample whose therapists also completed assessment materials during the same time period, as part of another, independent research project. This final patient sample consisted of 37 males and 71 females, ranging in age from 16 to 71 years (mean age = 32 years). Diagnoses were assigned according to DSM-III criteria and included schizophrenia

(n = 23), bipolar affective disorder (n = 9), major depressive disorder (n = 12), dysthymic disorder (n = 25), anxiety disorder (n = 6), personality disorder (n = 14), substance abuse (n = 5), and adjustment reaction (n = 14).

Therapists for this study consisted of four clinical psychology interns and seven psychiatric residents in their second year of post-graduate training. Two of the therapists were female, nine were male. Therapists ranged in age from 27 to 30 years, with a mean age of 27.5 years. The total number of inpatients treated by each therapist ranged from 3 to 23.

Procedure

On admission to the psychiatric unit, each patient was assigned to the care of a primary therapist, who was responsible for the supervision of general psychiatric care during the patient's stay and for providing individual psychotherapy as indicated. Therapist-patient assignments were made on an essentially random basis, with the exception of those patients who had been previously treated by a particular therapist as an outpatient or during a prior hospitalization, and who were reassigned to that therapist. The length of hospital stay for the patients in this sample ranged from 1 to 61 days, with a median length of stay of 13 days (mean = 16 days).

The type and amount of individual psychotherapy administered to each patient was determined by the therapist in accordance with the specifics of each patient's individualized treatment plan. The modal number of treatments received by patients in this sample was one session

of individual therapy per day of hospitalization. (In order to control for length of hospitalization in subsequent analyses, the amount of therapy was recorded in terms of relative number of individual sessions per day of hospital stay.) The mean daily frequency of individual therapy was .59, or approximately six treatments for every ten days of hospitalization.

Shortly after admission to the inpatient unit, subjects meeting inclusion criteria were asked to complete a form indicating their consent to participate in research, along with the self-administered instruments selected to assess the patient variables under study. Records were also maintained of the types and amounts of collateral treatment received by each patient throughout his/her hospital stay. In addition to individual psychotherapy, patients received collateral treatment as indicated in the form of chemotherapy, ward milieu, group psychotherapy, family and occupational therapies.

As part of an ongoing research project on outpatient psychotherapy, the therapists in this study completed a series of self-administered instruments assessing aspects of therapist personality and therapeutic orientation at the beginning of the residency/internship year. These data were stored on the hospital computer and were accessed, along with the inpatient data base described above, for the purposes of the present study. The actual link-up of inpatient data with the corresponding therapist data was accomplished by computer, after patient and therapist identification codes were paired by consultation of appropriate hospital records. At no time did the principal investigator or anyone involved in the analysis of data have

access to individual patient or therapist scores on any of the variables, insuring complete confidentiality and individual anonymity for the participants of this study.

Instruments

Outcome Measures

In order to evaluate treatment gains, while taking into account the multidimensionality of change (Lambert, 1983) and the consequent need to assess outcome along a broad range of dimensions (Beutler & Crago, 1983), three separate outcome analyses were planned. These were designed to address different dimensions of patient functioning, assessed by three independent sources: overall patient improvement noted by the therapist at discharge, change in subjective symptomatology reported by the patient, and behavior change observed by ward nurses. In order to evaluate treatment effects, outcome measures representing each of these dimensions were to be entered as the dependent variable in each of three multiple regression analyses.

The first measure of outcome was the therapist's Global Improvement Rating, based upon a judgment of the patient's change in global psychiatric status taken at the time of discharge. Improvement ratings were obtained on a 6-point scale assessing the extent of posttreatment change observed, with values reflecting a range from "much worse" to "very much improved". An examination of the obtained ratings showed that no patients were judged to be worse as a result of their hospitalization. This had the effect of producing a distribution of ratings which represented the relative degree of posttreatment

improvement, ranging from "none" ("same") to "very much improved". This global improvement score, the therapist's rating at discharge (ThRatDC), was designated as the dependent measure of treatment-induced improvement to be entered in the first regression analysis of outcome effects.

Although the Global Improvement Rating constituted a readily available, single score measure of general improvement, it was necessary to derive a method of assessing change from pre- to postevaluation for the other two sources of outcome assessment, based on patient and observer reports. (See Beutler and Crago, 1983, for a discussion of the differences between "improvement" and "change" scores.) The assessment of treatment-induced change, in terms of patient symptomatology, was the focus of the second outcome analysis and was accomplished through use of patient ratings on the SCL-90-R (Derogatis et al., 1976). This 90-item self-report symptom checklist was completed by patients at admission and discharge. Scores were obtained for three global indices of disturbance and nine symptom-specific scales; included among the symptom dimensions are obsessive-compulsiveness, somatization, depression, anxiety and hostility.

Internal consistency coefficients, test-retest reliability ratings and validity studies for the SCL-90-R are reported by Derogatis et al. (1976). On the basis of these data and the recommendation of Beutler and Crago (1983), the SCL-90-R was judged to provide an appropriate and reliable instrument for the assessment of patient symptomatology on pre- and posttreatment occasions. Beutler and Crago also recommend the use of a single global measure of patient functioning from each source, rather than that of multiple specific target measures.

The Global Symptom Index (GSI) subscale, obtained from the SCL-90-R completed by the patient at discharge, was therefore selected for use as the single score measure of posttreatment status in overall patient symptomatology. The GSI scale, which provides a measure of general symptom severity, had accounted for 70% of patient variation in specific symptom dimensions in previous research with these data (Beutler et al., 1984). This posttreatment scale value (GSI-DC) was designated as the dependent variable for the second regression analysis assessing outcome effects.

In addition to the SCL-90-R, patient functioning at admission was assessed by the Minnesota Multiphasic Personality Inventory (MMPI) (Dahlstrom, Welsh, and Dahlstrom, 1973). This extensively documented self-report instrument, which provides measures of general psychopathology and specific symptomatology, has also been recommended for use in the assessment of psychotherapy outcome (Dahlstrom, 1975). In order to control for initial level of disturbance, a pretreatment psychopathology index (PPI) was derived. This composite measure was obtained by averaging patient T-scores on two single score measures of general symptom intensity and subjective disturbance: the initial level GSI score on the SCL-90-R, and the F scale elevation on the MMPI. Entering this value (PPI) into the regression analysis first was intended as a means of estimating residual gain (Beutler and Crago, 1983), by effectively correcting for the effects of initial levels of disturbance on subsequent Global Symptom Index scores. Such a method of eliminating the effects of initial values by multiple regression has been seen to be

preferable to correcting each scale by its own initial value (Lambert, 1983).

The final measure of treatment-induced change, focusing on observed patient behavior rather than subjective symptomatology, was based on ward ratings completed by the nursing staff. Ratings were completed on a weekly basis throughout each patient's hospitalization, using the Nurse's Observation Scale for Inpatient Evaluation (NOSIE) (Honigfeld & Klett, 1965). This 30-item rating scale has been well-developed in inpatient settings and has been seen to provide satisfactory levels of interrater reliability and concurrent validity in studies reported by Honigfeld et al. (1966). Interrater reliability on the NOSIE was found to be above .85 in previous analyses using these data (Beutler et al., 1984).

Reports based upon "frequency of occurrence" observations were used to obtain NOSIE scores on six factors (social competence, social interest, personal neatness, irritability, manifest psychosis, and retardation) and a "total assets" summary score. This latter score, reflecting a ratio of positive to negative behaviors, was selected as the single global measure of patient ward behavior for use in the final outcome analysis. The total assets score was obtained from the first and last nurses' ratings completed for each patient, in order to assess ward behavior at the beginning and end of treatment. The final total ward rating (NOSIE2) was to be entered as the dependent variable in the third multiple regression analysis, assessing outcome effects with respect to patient ward behavior. Based on the reasoning outlined above, the initial rating of ward behavior (NOSIE1) would be entered

first into the regression equation as a control for pretreatment status in ward behavior.

Patient Measures

In order to control for the potential extraneous influence of patient background characteristics and effects due to collateral forms of treatment, data were collected on a number of patient variables. Length of hospital stay was included as a treatment variable, as were the relative number of sessions of individual and group psychotherapy, amount and type of drugs used, and amounts of family and occupational therapy. Patient demographics included diagnosis, age, sex, and IQ. Scores were recorded in their natural metrics when appropriate. Patient diagnosis was obtained from the attending physician's discharge summary, and was recorded in DSM III codes. IQ was estimated by the Shipley Institute of Living Scale (Shipley, 1940), completed by patients as part of the battery of instruments administered at admission. Few relationships were observed between patient measures in exploratory analyses, indicating no consistent biases in patient-treatment assignments. A number of correlations significant at the .05 level were obtained for estimated IQ, with higher scores on the Shipley being associated with lower symptomatology at admission ($r = -.25$), more positive versus negative ward behaviors at discharge ($r = .32$), and fewer sessions of individual therapy per day of hospital stay ($r = -.22$). Patient age and sex were significantly related to each other for this sample ($r = .26$, $p < .01$), such that older patients tended to be female.

The patient predictor variables for this study, reactance potential and defensive style, were defined by measurement procedures derived from a review of the literature and exploratory correlational analyses. Limitations imposed by the available data precluded use of some previously applied instruments cited in the literature, such as the locus of control dimension as a measure of reactance potential. Following the example of Beutler et al. (1984), reactance potential was defined using the Fundamental Interpersonal Relations Orientation Scale (FIRO-B) (Schutz, 1958). This 54-item self-report instrument identifies three areas of interpersonal need (Inclusion, Control, Affection), which are seen to tap a sufficient set of areas of interpersonal behavior for the prediction and explanation of interpersonal phenomena (Schutz, 1958, p.13). In addition to the extensive reliability and validity data reported by Schutz (1958, 1966), this instrument has been found useful in a number of studies assessing the effects of therapist-client interpersonal compatibility on psychotherapy outcome (e.g., Malloy, 1981; Mendelsohn & Rankin, 1969; Sapolsky, 1965).

Reactance potential was defined in terms of patient scores on the Wanted Control (C_w) subscale of the FIRO-B. This 9-item scale assesses the extent to which an individual customarily allows one's own behavior to be controlled or influenced by others, indicated by the total number of positive responses to typical scale items such as, "I let other people control my actions". High reactance would therefore be indicated by a low Wanted Control score, with lower reactance associated with scores expressing a desire for greater control from others. The Wanted Control scale was keyed in the opposite direction to

serve as a direct measure of patient reactance potential (PtRP) for subsequent analyses: $PtRP = 9 - C_w$. Preliminary analyses indicated that this measure was relatively independent of the other FIRO-B scales as well as the clinical scales of the MMPI (obtained intercorrelations for these data ranged from $\underline{r} = .01$ to $.19$). PtRP was modestly correlated in the expected direction ($\underline{r} = .30$, $p < .001$) to Leary's (1957) dominance-submission measure.

Patient defensive style was defined in terms of MMPI subscale scores, combined in an internalization/externalization ratio in the manner reported by a number of authors (i.e., Beutler & Mitchell, 1981; Haan, 1965; Stein & Beall, 1971; Welsh, 1952). Exploratory analyses were performed in order to evaluate the four different (but similar) ratios proposed by these authors, which were seen to obtain intercorrelations ranging from $\underline{r} = .19$ to $\underline{r} = .90$ for these data. Although none of these ratios contain all of the MMPI subscales, all 13 of the MMPI scales are represented among these ratios. On the basis of the consensual agreement (overlap) among these ratios and the obtained intercorrelations of MMPI subscales, each MMPI scale was judged to reflect either an internalizing or an externalizing defensive style. All of the MMPI subscale scores were then combined into a composite internalization/externalization ratio, derived from these four ratios and highly correlated to each of them (obtained correlation coefficients ranged from $.71$ to $.77$). Use of such a composite measure was intended as a means of capitalizing on the inherent consensual agreement among the different operationalizations of this ratio.

This composite "internalization ratio" (PtIR) was computed from the following MMPI T-scores: $PtIR = (F + 1 + 2 + 5 + 7 + 8 + 10) / (L + K + 3 + 4 + 6 + 9)$.^{*} This value reflects the ratio of internalizing to externalizing subscale scores, such that PtIR scores greater than 1.0 indicate a score in the internalizing direction. Patients in this sample tended to score in the internalizing direction, indicated by a mean PtIR score of 1.25 (s.d.=.16). Obtained correlations for these data indicated that PtIR was positively related ($p < .01$) to the MMPI F scale and all clinical scales except 4 (Pd) and 9 (Ma). This is consistent with previous findings (e.g., Beutler & Mitchell, 1981; Stein & Beall, 1971) which suggest that patients exhibiting internalizing defenses tend to endorse more overall symptomatic complaints compared to externalizing individuals, the latter of whom are seen to be generally more denying of psychopathology. Higher PtIR scores were also noted to be associated with lower IQ scores on the Shipley for this sample ($r = -.20, p < .05$).

Therapist Measures

As part of the assessment battery administered at the beginning of the internship/residency year, therapists completed the Rotter I-E (internal/external locus of control) Scale (Rotter, 1966) and the Eysenck Personality Inventory (EPI) (Eysenck & Eysenck, 1969). After an inspection of the obtained dimensions, these instruments were not considered to be directly relevant to the therapist variables identified for analysis in this study. These data were therefore included in

^{*}PtIR = $(F + Hs + D + Mf + Pt + Sc + Si) / (L + K + Hy + Pd + Pa + Ma)$.

preliminary analyses for descriptive purposes only, but were not entered into any of the subsequent outcome analyses. Therapist age, sex, and professional discipline were also included only as descriptive data.

The therapist predictor variables, directiveness and internal/external orientation of therapeutic approach, were defined in terms of scores obtained on the Therapist Orientation Questionnaire (TOQ) (Sundland & Barker, 1962). A revised form of this instrument (Sundland, 1977) was used, containing 104 items which are scored on a 5-point scale from "strongly agree" to "strongly disagree". The items sample orientation to such areas as training, planning and conceptualization of therapeutic approach, as well as use of gestalt techniques, dreamwork, desensitization, and informal behavior. Research on this instrument has isolated three basic dimensions relating to ideological orientation (analytical/experiential/behavioral), along with 11 specific factors relating to therapist activity level and relative emphasis in therapy on such elements as insight, social adjustment, feeling awareness and conceptual learning (see Sundland, 1977, for normative data and reported reliability and validity data obtained with the TOQ).

Based on an inspection of item content, TOQ Factor 4 was judged to best represent the dimension of therapist directiveness (TherDIR) for the purposes of this study: TherDIR = TOQ Factor 4. This scale endorses a preference for the use of an active, interruptive, and confrontive approach with therapy clients, as exemplified by the following typical scale item: "I am a fairly active, talkative therapist, compared to most therapists". Convergent validity analyses indicated a strong positive relationship between therapists' scores on this measure

of directiveness, and extroversion as measured by the Eysenck E scale ($r = .85$, $p < .001$). There was also a moderate tendency for directive therapists to score in the internal direction on the Rotter (I-E) locus of control scale ($r = -.33$, $p = .001$).

The TOQ was also used as the basis for defining internal/external orientation of therapy, that is, the extent to which a therapist favors an insight or experiential (internally focused) treatment approach, over a behaviorally oriented (externally focused) approach. Factor analytic and discriminant validity data on the TOQ (Sundland, 1977) provided the basis for selection of the TOQ factors which, when combined, would best represent this dimension. Four factors were identified which were the most prominent in defining Sundland's general factors (clusters), reflecting analytic, experiential, and behavioral theoretical orientations. These were combined to form a composite measure of internal/external therapeutic focus for the purposes of this study.

The degree of internalization in therapy orientation (TherINT) was defined by the combination of Factor 2 (psychoanalytic orientation), plus Factor 5 (importance of feeling awareness), minus Factor 3 (focus on social adjustment), minus Factor 10 (emphasis on verbal/conceptual learning): $\text{TherINT} = \text{TOQ Factors } 2 + 5 - 3 - 10$. Exploratory analyses showed a negative correlation between therapist scores on TherINT and the Eysenck E scale, suggesting a tendency for those who favor an internal focus in therapy to score in the introverted direction on this measure ($r = -.36$, $p < .001$). Therapy orientation was not significantly related to the locus of control variable for these data.

Matching Scores

Having defined the variables to represent the dimensions of patient functioning under consideration, and the corresponding dimensions of therapeutic intervention, the next step was to derive values which would represent the degree of "match" between these corresponding variable pairs, for each patient-therapist dyad. This was accomplished by converting the scores on each patient and therapist variable to z-scores, which were obtained using the sample means and standard deviations for the respective patient and therapist distributions. These z-scores were combined in a manner to reflect the actual differences (in effect, the mis-match) between patient and therapist scores for each dimension. Patients were thus assigned a difference score (D1) to represent the difference/mis-match between their own reactance score and their therapist's directiveness score, and a second difference score (D2) to represent the mis-match between their own defensive style score and their therapist's orientation score: $D1 = \underline{Z}_{PtRP} + \underline{Z}_{TherDIR}$; $D2 = \underline{Z}_{PtIR} - \underline{Z}_{TherINT}$. (The difference in mathematical signs within the equations is due to the fact that a predicted optimal match occurs for D1 when the patient-therapist variables are inversely related, and for D2, when the dimensions vary directly.)

It should be noted that these derived "actual" difference scores, which reflect the relative degree of mis-match by their value, also exhibit a valence, indicating the relative direction of mis-match. For example, an extreme positive value for D1 would reflect a poorly matched dyad, comprising a highly reactant patient and a highly

directive therapist; an equal, but negative, value for D1 would indicate an equally poor match, between a patient with low reactance potential and a relatively nondirective therapist. Therefore, "absolute" difference (AD) scores were obtained from these values to serve as the final predictor scores, reflecting absolute degree of (mis-) match, in either direction, for each patient-therapist dimension: $AD1 = |D1|$; $AD2 = |D2|$. Finally, in order to evaluate the hypothesized additive effect between the two patient-therapist dimensions, these two dimension-match predictor scores were then combined into a single, absolute, overall-match (M) predictor score for each patient-therapist dyad: $M = AD1 + AD2$.

CHAPTER 3

RESULTS

Validation Analyses

Descriptive statistics and intercorrelations were obtained for all of the variables, both measured and derived, in order to examine their interrelationships and the nature of the sampling distributions. After a review of the results of previous analyses utilizing these patient data (Beutler et al., 1984) and an examination of preliminary statistics for the current sample, a number of variables for which data were available were excluded from consideration at the outset of the analyses. This was done if the variable was represented by only a limited number of cases or, by not being significantly related to any of the independent or dependent measures, had failed to demonstrate informative or predictive value in the original analyses. The variables not included in subsequent analyses were: patient diagnosis, amount and type of drugs used, amount of family therapy received, and number of occupational therapy sessions attended. Although the type of group psychotherapy received was not included in the primary analyses, relative number of group therapy sessions attended was retained as a predictor in order to evaluate any effects due to this form of collateral treatment. Table 1 presents descriptive statistics for the therapist and patient variables retained for analysis in this study. Therapist background variables (age, sex, IE and Eysenck E scores) were

Table 1
DESCRIPTIVE STATISTICS

<u>Category</u>	<u>Variable*</u>	<u>Mean</u>	<u>S.D.</u>	<u>N</u>
Patient Variables				
a. Background	Age	32.31	13.32	108
	Sex	0.66**	0.48	108
	EstIQ	104.33	11.24	101
b. Predictor	PtRP	5.16	2.84	102
	PtIR	1.26	0.16	103
c. Pretest	PPI	64.14	13.33	108
	NOSIE1	72.11	21.08	47
d. Treatment	LOS	16.55	12.23	108
	#Ind/LOS	0.59	0.30	108
	#Grps/LOS	0.11	0.11	108
	GSI-DC	48.06	13.01	37
e. Outcome	NOSIE2	82.42	14.53	48
	ThRatDC	3.87	0.99	96
Therapist Variables				
a. Background	Age	30.67	1.63	11
	Sex	0.07**	0.25	11
	IE	6.62	4.01	11
	Eysencke	11.54	4.04	11
	TherDIR	47.36	9.76	11
b. Predictor	TherINT	-1.87	15.30	11

* EstIQ = Estimated IQ (Shipley)

PtRP = Patient reactance potential

PtIR = Patient defensive style: internalization ratio

PPI = Composite estimate of initial disturbance

NOSIE1 = Total ward rating at initial evaluation

LOS = Length of hospital stay

#Ind/LOS = Number of individual therapy sessions per day of hospitalization

#Grps/LOS = Number of groups attended per day of hospitalization

GSI-DC = General symptom intensity at discharge

NOSIE2 = Total ward rating at discharge

ThRatDC = Therapist improvement rating at discharge

IE = Locus of control (Rotter IE)

Eysencke = Extroversion (EPI)

TherDIR = Therapist directiveness

TherINT = Therapy orientation, internal focus

** Sex was coded 0 for males and 1 for females; thus the mean represents the proportion of females.

included in preliminary analyses to validate the lack of bias in patient assignment, but were not entered into subsequent regression analyses. The difference/match scores derived from the combination of patient and therapist predictor variables (D1, D2, etc.) were included in all statistical analyses but are not presented in this table because of the artificiality of their metrics.

Difference/match scores were obtained for 92 patient-therapist dyads, for each of the patient-therapist matching dimensions and the overall match. Inspection of the resulting distributions for these derived scores showed them to be essentially normal in shape. The absolute match scores (AD1, AD2, M) were not significantly correlated to any of the other patient or therapist variables, even those from which they were derived, effectively demonstrating their independence as predictive measures. As anticipated, the overall match score (M) was moderately and equally correlated ($r = .44$, $p < .001$) to each of the dimension-match scores (AD1, AD2) from which it was constructed. An unexpected finding was a weak but statistically significant correlation between AD1 and AD2 ($r = .28$, $p < .01$), indicating a tendency for the patients and therapists in this sample to be similarly matched (or mis-matched) on both dimensions of patient functioning.

The obtained intercorrelations between the remaining predictor variables and outcome measures are presented in Table 2. The assumption of random assignment in the matching of therapists and patients on the dimensions under consideration was supported by the obtainment of essentially zero-order correlations between the patient variables of reactance potential and defensive style, and the therapist variables of

Table 2
CORRELATIONS

	B	C	D	E	F	G	H	I	J	K	L	M	N	O
A: Age	26**	-03	-02	10	09	-07	-05	-13	-14	16	01	20*	18	-05
B: Sex		01	-16	-18	03	-17	10	-22*	-11	-04	08	14	04	-03
C: EstIQ			13	-20*	-25*	18	-01	-22*	02	-07	32*	01	03	-06
D: PtrRP				-32***	-28**	15	06	06	02	-20	06	06	14	-06
E: PtIR					58***	-16	13	00	07	62***	-24	-02	04	00
F: PPI						-18	18	-08	12	71***	-36	01	00	-03
G: NOSIE1							11	-02	07	-33	49***	15	20	-10
H: LOS								-25*	10	01	-06	24*	-12	18
I: #Ind/LOS									01	02	-01	-19	-03	00
J: #Grps/LOS										23	05	-15	-24	00
K: GSI-DC											-53**	-32	-25	00
L: NOSIE2												31	04	15
M: ThRatDC													27*	-26*
N: TherDIR														-58***
O: TherINT														

* $p < .05$
 ** $p < .01$
 *** $p < .001$

Note: Decimals have been omitted from correlation coefficients.

directiveness and therapy orientation. The two patient dimensions, however, were not completely independent from each other. The moderate negative correlation obtained between patient reactance potential and internalization of defensive style ($r = -.32$, $p < .001$) indicated a tendency for externalizing patients to be relatively more reactant, and for internalizing patients to be somewhat less reactant.

Internalization of defensive style was moderately associated with higher levels of psychopathology at both admission ($r = .58$, $p < .001$) and discharge ($r = .62$, $p < .001$), a not unexpected finding in view of the previously mentioned tendency for internalizing individuals to endorse relatively more symptomatology on subjective measures (e.g., Stein & Beall, 1971). A somewhat weaker but still significant relationship was obtained between reactance potential and psychopathology on admission ($r = -.28$, $p < .01$), with higher disturbance associated with lower levels of reactance; this relationship did not hold for symptom scores obtained at discharge.

The therapist dimensions of directiveness and internal/external orientation of therapy focus were also found to covary significantly ($r = -.58$, $p < .001$). Increased directiveness was associated with an orientation in the external (behavioral) direction, whereas insight/experiential therapy tended to be practiced by therapists who were relatively less directive in their approach.

Pre- and postmeasures were correlated at the .001 level: there was a strong positive relationship between the admission and discharge ratings of patient symptomatology, PPI and GSI-DC, ($r = .71$), and also between the first and last nurses' ratings of ward behavior, NOSIE1 and

NCSIE2 ($\underline{r} = .49$). These figures suggest that these measures maintained reasonably good reliability from pre- to posttreatment, and emphasize the value of controlling for initial levels with residual gain estimates when analyzing outcome measures.

Although the outcome measures (GSI-DC, NOSIE2, ThRatDC) showed moderate correlations with one another in the expected directions, the relationship between the therapist rating score and the other two measures failed to achieve statistical significance. Some degree of consensus between outcome measures was demonstrated by the expected inverse relationship between patient symptom ratings at discharge and the final nurses' ratings of ward behavior ($\underline{r} = -.53$, $p < .01$).

The therapists' ratings of patient improvement completed at discharge were found to be significantly, albeit weakly, correlated to each of the therapist predictor variables, directiveness and internalization of therapy approach: higher patient improvement ratings were associated with a more directive ($\underline{r} = .29$, $p < .05$) and more external ($\underline{r} = -.26$, $p < .05$) therapy approach. Therapist ratings of improvement were also found to be positively correlated to patient age ($\underline{r} = .20$, $p < .05$) and length of hospital stay ($\underline{r} = .24$, $p < .05$).

Outcome Analyses

As previously described, separate multiple regression analyses were performed for each of the outcome measures selected to assess treatment-induced change. The regressions were executed in a step-wise mode, using the SPSS Regression subprogram. Stepping was terminated when no additional predictors could provide a significant ($p = < .05$)

increase in amount of variance explained. Each regression included the same predictor variables: age, sex, estimated IQ, length of hospital stay, relative number of individual therapy sessions, relative number of group treatments, patient reactance potential, patient defensive style, therapist directiveness, internal/external therapy orientation, actual match on each patient-therapist dimension, absolute match on each dimension, and overall patient-therapist match. The pretest measures, PPI and NOSIE1, were also entered when appropriate to control for initial levels on the outcome measure; that is, they were entered into the regressions with the dependent variables GSI-DC and NOSIE2, respectively. The significant findings derived from these regressions are displayed in Table 3. For each dependent variable, the predictor variables that showed significant explanatory power are listed, along with their regression coefficients and contributions to the multiple correlation coefficient.

Table 3

RESULTS OF MULTIPLE REGRESSIONS

Dependent Variable	Significant Predictors ($p < .05$)	B	Contribution to R^2	Stepwise R
A. ThRatDC	1. TherDIR	.287	.063	.251
	2. LOS	.022	.080	.378
B. GSI-DC	1. FPI	.676	.560	.748
	2. AD2	5.951	.093	.808
	3. #Grps/LOS	35.922	.077	.854
C. NCSIE2	1. NOSIE1	.342	.258	.507
	2 D2	-3.323	.081	.582

A. Therapist Ratings of Improvement

The first regression, with therapists' discharge ratings of improvement as the dependent variable, included 16 predictor variables and was based on data from 80 subjects. The first variable to be entered into the prediction equation was therapist directiveness, which accounted for 6.3% of the variance in this outcome measure. An additional 8% of the variance in therapists' ratings of patient improvement was accounted for by the inclusion of length of hospital stay as a significant predictor on step two. The total amount of variance accounted for by these two variables was 14.3% (final obtained Multiple $R = .38$). These results indicate that, for the therapists in this sample, the more directive (active, interruptive, confrontive) the therapist and the longer the patient's hospital stay, the higher the therapist's rating was of overall improvement seen in the patient at the time of discharge. The less directive the therapist and the shorter the patient's stay, the lower the improvement rating. The results of this regression were seen to provide no support for the hypotheses advanced in this study, concerning the effects of patient-therapist matching.

B. Patient Ratings of Symptomatology

The Global Symptom Index scale of the discharge SCL-90-R was the dependent variable for the second regression analysis, which was based on data from 32 subjects and included 17 predictor variables. The composite estimate of initial disturbance (PPI) was included among the predictor variables, at the same inclusion level, as a control for pretreatment status. PPI was entered into the prediction equation at

the first step in the regression. This measure of pretreatment disturbance accounted for a substantial 56% of the variation in post-treatment ratings of subjective symptomatology. Such a finding had been anticipated because of the previously documented influence attributed to initial levels of disturbance on treatment outcome (e.g., Beutler & Crago, 1983; Lambert, 1983). This expectation was also the primary reason for allowing this variable to be freely selected from among the other predictor variables, rather than forcing it into the regression equation at the first step by the use of a higher inclusion level.

The next variable to be entered into the regression equation was AD2, an absolute difference score reflecting the degree of mis-match between patient defensive style (internalizing vs. externalizing) and therapist internal/external orientation of therapeutic approach. This measure accounted for 9.3% of the variation in patient symptomatology at discharge, after extracting for the effects of initial level of disturbance. This finding indicates that higher levels of patient symptomatology at discharge were associated with patient-therapist dyads that were poorly matched in terms of defensive style and therapy orientation; greater improvement (less symptomatology) was reported by patients in dyads that were more optimally matched along this dimension. The relative direction of mis-match did not differentially affect outcome: greater psychopathology was equally associated with membership in a mis-matched dyad comprised of an internalizing patient and a behavioral therapist, as with that of an externalizing patient and a therapist favoring an insight or experiential approach. This result was seen to provide support for the hypothesis that optimal patient-

therapist matching with respect to patient defensive style and therapy orientation is facilitative of improved treatment outcome, in terms of reduced patient symptomatology.

The last variable to be entered into the analysis as a significant predictor of patient outcome ratings was number of group therapy sessions attended per day of hospitalization (#Grps/LOS). This variable accounted for an additional 7.7% of the variation in patient symptom ratings at discharge, contributing to a final multiple correlation coefficient of $R = .85$ for the three co-predictors. A total of 73% of the variance in patient posttreatment scores was accounted for by this combination of pretreatment disturbance, patient-therapist match for defensive style, and relative amount of group therapy. This latter finding is particularly remarkable because of the nature of the relationship: higher relative amounts of group treatment were associated with higher levels of reported psychopathology on discharge. These results are essentially consistent with those of Beutler et al. (1984), who analyzed the effects on outcome of participation in each of three psychotherapy groups and a no treatment control condition, using these same patient data. They found a significant deterioration effect (measured by the same posttreatment symptom index) among patients exposed to one of the therapy groups, which was based on an expressive-experiential group format.

A supplementary analysis was undertaken at this point, to further elucidate the nature of the group treatment effects described above. An additional regression was conducted with patient ratings as the dependent measure, eliminating the previously used measure of

relative frequency of group attendance from the analysis, while including membership in each group condition as separate predictor variables. The resulting regression equation contained the same two co-predictors (PPI and AD2), with membership in the no treatment control group constituting the third, negatively valenced, predictor of patient outcome. The final regression equation for this analysis (using groups) provided a slightly higher multiple correlation coefficient ($R = .88$) than that previously obtained by the inclusion of relative number of groups, and increased the total amount of variance accounted for by this combination of predictor variables by an additional 5% to a total of 78%. Thus, better outcomes, reflected by lower scores on the final patient symptom index, were associated with the combination of lower levels of initial disturbance, an optimal patient-therapist match with respect to patient defensive style, and no exposure to group psychotherapy of any type.

C. Nurse Ratings of Ward Behavior

The total score from the nurses' final rating of patient behavior (NOSIE2) was the dependent variable for the third regression analysis, which was based on data from 39 subjects and included 17 predictor variables. As expected, the first variable to enter into the regression equation was that of the initial, pretreatment rating of ward behavior (NOSIE1), which accounted for 25.8% of the variation in the posttreatment ratings of patient behavior. Again, this is a not particularly surprising finding due to the acknowledged influence of pretreatment status on subsequent ratings, and further underscores the

importance of controlling for such effects in outcome assessment. An additional 8.1% of the variation in nurses' ratings was accounted for by the inclusion of the patient-therapist matching score, D2, as a predictor on the second, final step of the regression. The total amount of variance accounted for by these two variables was 33.9% (Multiple $R = .58$).

Although D2 does represent a difference score, based on the degree of mis-match between patient internalizing/externalizing defenses and therapist internal/external orientation, this result is not strictly in accordance with the hypotheses advanced in this study because D2 does not reflect an "absolute" mis-matching of patient and therapist on these variables. As is the case with an absolute match score, D2 results in a value of zero when patient and therapist are optimally matched; the greater the mis-match, the higher the score. However, a positive value for D2 reflects the mis-matching of an internalizing patient and an externally oriented therapist, whereas a negative value indicates the pairing of an externalizing patient and an internally oriented therapist. Since D2 was entered into the regression as a negative value, this would indicate that the highest behavioral ratings were associated with negative scores on D2 (externalizing patients paired with internally oriented therapists), and that the lowest ratings of ward behavior were associated with membership in a dyad obtaining a positive score on D2 (internalizing patients and externally oriented therapists). Membership in an optimally matched patient-therapist dyad (zero-order scores on D2) was associated with nurses' ratings of ward behavior falling somewhere in the middle of the distribution of these

ratings. Thus, in terms of posttreatment ward behavior, a mis-match with one's therapist resulted in the highest level of ward functioning for externalizing patients, and the poorest for internalizing patients. The matching hypothesis was thus supported only for internalizing patients, who tended to exhibit more positive posttreatment ward behavior when optimally matched than when mis-matched. Externalizing patients exhibited relatively more positive ward behaviors at discharge when mis-matched in terms of defensive style than when matched, in contradiction to the matching hypothesis.

In order to interpret this result in terms of actual patient treatment gains, i.e., improvement or deterioration in ward behavior, the distributions of NOSIE1 and NOSIE2 scores were examined and compared. The distribution for NOSIE1 obtained a range of 92 (18-110), a mean of 72.1, and a standard deviation of 21; NOSIE2 was described by a range of 60 (46-106), a mean of 82.4, and a standard deviation of 14. From these parameters and histograms of the distributions it was observed that both distributions were negatively skewed, the only essential difference being a more extreme negative skew in the NOSIE1 distribution, which largely accounted for the 10-point higher mean for NOSIE2. Thus, for the overall sample, the greatest positive change in ward behavior was achieved primarily among those whose initial level of functioning had been poorest. Taking these data into account with respect to the regression results, it appears that the greatest amount of behavioral improvement due to matching effects tended to occur for initially poor-functioning externalizing patients, with the most positive treatment gains observed among those paired with an insight or

experiential therapist. Internalizing patients tended to manifest fewer overall treatment gains in terms of behavioral improvement, and, if they were highly functioning to begin with, were more likely to show some deterioration in ward behavior at the end of treatment, particularly if paired with a therapist favoring a more behavioral, cognitive approach.

CHAPTER 4

DISCUSSION

Two dimensions of therapist-patient matching were identified and their importance to psychotherapy outcome was assessed. It was hypothesized that improved treatment outcome would be observed for patient-therapist dyads who were optimally matched in terms of (1) patient internalizing/externalizing defensive style and internal/external focus of therapy approach, and (2) patient reactance potential and therapy directiveness. Three separate analyses were performed, using independent sources of outcome assessment: therapists' ratings of global improvement, patients' ratings of symptomatology, and nurses' ratings of ward behavior. No effects due to matching were observed for therapists' ratings, which were somewhat predictable on the basis of therapist directiveness and length of patient hospital stay. Positive outcome in terms of lower patient-reported symptomatology was predicted by the combination of lower disturbance at admission, optimal patient-therapist matching on the first dimension (defensive style), and minimal exposure to group psychotherapy. Posttreatment ward behavior was predicted by pretreatment behavior and patient-therapist matching on the first dimension, patient defensive style. This latter effect was in accordance with the hypothesis only for internalizing patients; externalizing patients exhibited improved behavior when mis-matched with their therapists along this dimension.

These results suggest that the first hypothesized matching dimension, between patient internalizing/externalizing defensive style and therapist internal/external orientation, contributes a significant influence on treatment outcome. The nature of this influence appears somewhat equivocal, however, as consistent positive effects on outcome due to optimal patient-therapist matching were demonstrated only when assessing patient subjective symptomatology: when therapist and patient were mis-matched on this dimension, patient-reported symptoms increased (the poorer the match, the worse the patient felt at the end of treatment). The effects of this matching were equally apparent, but less consistent, when outcome was judged by ward behavior: in terms of observed ward behavior, the greater the mis-match, the greater the change - in either direction, depending on patient defensive style. Mis-matching contributed to deterioration in behavior for internalizers, but resulted in behavioral improvement for externalizers. These results appear reasonable and consistent, when considering internalizing patients: the greater the mis-match, the worse the patient feels, and behaves. The interpretation of these findings for externalizers, however, is considerably more challenging: the greater the mis-match, the worse the patient feels, but the better he/she behaves.

One possible approach, in explaining these paradoxically discrepant outcome ratings, would be to examine the source of the obtained reports. This leads to the issues of consensus between raters and reliability of ratings. The design of the present study specifically included assessments from the divergent vantage points of patient, therapist and observer. Ideally, this multiple perspective

allows for the possibility of averaging effects across raters, as a way of increasing measurement reliability (Strupp & Hadley, 1977).

Intersource correlations, however, tend to be consistently lower than those for same-source ratings. Green et al. (1975), for example, observe that the method of measurement and source of report are more important determinants of consensus among outcome measures than that which is being measured. We have already observed that therapists' ratings of improvement were not significantly correlated to patients' or nurses' ratings for these data. In fact, there were no matching effects on outcome whatsoever for therapist ratings, which were seen to be moderately predictable on the basis of therapist directiveness and length of the patient's hospital stay. Besides the probable lack of sensitivity of such improvement ratings to psychotherapy effects (cf. Beutler & Crago, 1983), these results are consistent with reports that therapist ratings are immoderately influenced by personal biases and demand characteristics of the therapeutic situation (e.g., Newman, 1983). These results may indeed reflect some degree of therapist bias, such that directive therapists were inclined to be more assertive in their judgments of patient improvement at discharge.

In spite of the respectable correlation between the patients' and nurses' ratings for these data ($r = -.53$, $p < .01$), it might be questioned whether nurses' ratings of behavior do in fact reliably capture the true experience of these externalizing patients, who were perceived as "looking good" while feeling bad. One such failure of nurses' ratings to correspond to patient ratings in assessing the effects of therapist-patient compatibility has been reported by Gassner

(1970). He assessed the compatibility of pastoral counselors and psychiatric inpatients on the FIRO-B and found patient ratings of the therapy relationship to be significantly higher for compatibly paired dyads than for incompatible pairings; no significant results were obtained with respect to outcome as measured by nurses' ratings of behavioral adjustment. One possible explanation for such results may be that, whatever effects are generated as a result of optimal or non-optimal matching of patient and therapist, these effects are subjectively experienced by the patient to a measureable degree, but do not tend to manifest themselves as consistently or as reliably in terms of observable behavior.

The possibility exists, of course, that both the patient and nurses' ratings for this study represent valid and reliable measures of the specified outcome effects, and that the obtained results reflect a differential treatment outcome with respect to subjective symptoms and objective behavior. It would then be necessary to reconcile these differences by identifying the criterion which defines "true" improvement, in the event of conflicting results. When patient reports of subjective symptomatology are not consistent with observer ratings of behavior, as is the case with the present data, the most reasonable explanation of the results would seem to derive from declaring objective behavior to be the criterion of actual improvement. Thus a result in which an externalizing patient was observed to be highly functioning in terms of ward behavior, while presenting a self-report of increased symptomatology, would be interpreted as a situation wherein the patient has actually improved but feels subjectively worse.

On closer examination this situation appears not quite so paradoxical, when the nature of this type of patient's defensive style is considered: externalizing defenses serve to "act out" or otherwise discharge anxiety due to internal or external conflicts, thereby keeping conflicts out of awareness and thus reducing subjective discomfort. As previously mentioned, externalizing individuals consistently score lower than internalizers on subjective measures of symptomology, suggesting that such a defensive style does effectively serve to minimize personal discomfort. Successful psychotherapy with such an individual may, in fact, entail a process which decreases behavioral acting out by increasing conflict awareness and, therefore, may result in a concomitant increase in subjective discomfort. This type of treatment goal would be particularly consistent with the practice of internally oriented therapists, with whom our "improved" externalizers were matched.

This interpretation of the current results would necessitate a revision of the original hypothesis, which asserted that optimal matching of patient and therapist facilitates positive treatment gains and that mis-matching decreases the likelihood of successful outcome. If the nurses' ratings of ward behavior reflect true treatment gains, the obtained results indicate that externalizing patients improved the most (behaviorally if not subjectively) when mis-matched, that is, when treated by a therapist favoring an insight or experiential approach. The original hypothesis would continue to hold for internalizing individuals, who obtained better outcomes, in terms of both subjective and objective outcome ratings, when they were matched rather than

mis-matched with their therapists on the specified dimensions. This interpretation would also suggest consideration of the possibility that internally focused therapy produced generally better outcomes for both internalizers and externalizers, as found by Beutler and Mitchell (1981), although this was not directly supported by the results of these outcome analyses.

The obtained results provided no support for the first hypothesis, concerning the positive effects on outcome of optimal patient-therapist matching with respect to patient reactance potential and therapist directiveness. (Accordingly, there was no basis for confirmation of the hypothesis that increased treatment gains would be associated with the concurrent optimal matching on both patient-therapist dimensions.) In considering the possible explanations for the failure of this matching dimension to make any kind of showing in the prediction of outcomes, the measurement of "reactance potential" by the Wanted Control subscale of the FIRO-B would appear to be the weakest link in the operationalization process and the most likely source of error. Although this construct has been successfully validated in studies using the Rotter I-E locus of control scale (Baker, 1979; Brehm & Brehm, 1981; Messer & Meinster, 1980), reactance potential has been less successfully represented by the FIRO-B dimension of wanted control (e.g., Beutler et al., 1984). The latter measure was chosen for use in this study with some reservation, because of this questionable validity as a measure of reactance potential. However, the process of deriving suitable measures of the hypothesized dimensions was limited by the patient data which was available, and after consideration of the

available alternatives the FIRO-B scale did appear to provide the highest degree of face validity in the representation of this construct. In light of the obtained results, this assumption seems somewhat less tenable.

Another limitation to the present study which must be considered is the operationalization of the therapy dimensions by the use of the Theoretical Orientation Questionnaire. Due to the self-report nature of this instrument, the possibility exists that obtained scores on the TOQ reflect therapist biases that bear little or no correspondence to actual therapy practice: that is, there may not be any direct correspondence between "internal/external orientation" as expressed in a self-report measure and actual behavior in the therapeutic encounter. Although Sundland (1977) provides some evidence of construct validity for this instrument in terms of correspondence between TOQ scores and avowed therapy practice, "the study of whether they really behave in those ways has yet to be done" (p. 206). Certainly this is a problem in the interpretation of the present results, and any future replications would be improved by an independent assessment of therapist orientation by observation of actual in-therapy behavior.

The interpretation of the present results is also complicated by the fact that the matching dimensions were not independent for this sample, that is, that patient-therapist dyads tended to be matched or mis-matched on both of the dimensions under consideration. The implication of this fact is somewhat unclear, when considering that one of the identified matching dimensions was significantly related to outcome whereas the other was not. That the predictive significance of

the first matching dimension, defensive style, was clearly substantial is demonstrated by the amount of variability in patients' and nurses' outcome ratings which was accounted for by this dimension (i.e., 9.3% and 8.1%, respectively).

In conclusion, these results are seen to demonstrate not only the feasibility but the necessity of considering patient-therapist interaction effects in the assessment of psychotherapy outcome. The style of psychological defense employed by the patient appears to be a particularly important dimension to be considered in the planning and implementation of a therapeutic approach, in that patient-therapist matching on this dimension was seen to contribute significantly to treatment outcome in terms of both patient symptomatology and behavior. Additional research is recommended in order to clarify the apparently differential effects of this matching dimension with respect to subjective and objective outcome criteria. Further research will also be necessary in order to confirm or refute the importance of patient reactance potential as a significant dimension in patient-therapist matching. Finally, these results reiterate the need for further exploration of the possible iatrogenic effects of some forms of inpatient group psychotherapy.

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