

This is to certify that the
dissertation entitled
PSYCHOTHERAPY OUTCOME
AND THE COURSE OF THE THERAPEUTIC ALLIANCE

presented by

Michelle Rae Klee

has been accepted towards fulfillment
of the requirements for

Ph.D. degree in Psychology

Major professor
Norman Abeles, Ph.D.

Date December 10, 1986



RETURNING MATERIALS:

Place in book drop to
remove this checkout from
your record. FINES will
be charged if book is
returned after the date
stamped below.

OCT 25 1988
SUCCA 007

NOV 22 1988
220

~~1/3/90~~

2/11/90

3/10/90

4/12/90

6/30/90
MAGIC 2

APR 02 1999
07 18 01

PSYCHOTHERAPY OUTCOME
AND THE COURSE OF THE THERAPEUTIC ALLIANCE

By
Michelle Rae Klee

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Psychology

1986

ABSTRACT

PSYCHOTHERAPY OUTCOME
AND THE COURSE OF THE THERAPEUTIC ALLIANCE

By
Michelle Rae Klee

The failure of research to consistently validate the theoretical importance of the therapeutic alliance in predicting psychotherapy outcome was hypothesized to be a consequence of an inadequately complex approach to the alliance research, an approach particularly likely to obscure the influence of therapist variables. The primary purpose of this study was to address the complexity of the therapeutic alliance by studying the interaction of the patient's initial potential for establishing a relationship, the course of patient and therapist contributions to the alliance, and psychotherapy outcome, defining outcome in clinically significant terms. A second objective of the study was to assess the applicability of the Therapeutic Alliance Rating Scale (TARS) to a heterogeneous sample of psychotherapy cases.

Thirty-two adult psychotherapy patients were classified as having a high or low prognosis for establishing a relationship based on clinical judge ratings on the TARS of their contributions to the therapeutic alliance in the first session of treatment. For each case, judges also rated patient and therapist contributions to the alliance for an early, middle, and late session in

Michelle Rae Klee

treatment. Patients were assigned to one of three outcome groups, based on the application of criteria for clinically significant improvement to scores on the SCL-90-R.

As predicted, from the first session of treatment, patients demonstrated a potential for establishing a therapeutic relationship that was predictive of their capacity to contribute to a therapeutic alliance throughout treatment. The results partially supported the hypothesis of an increase from early to late therapy in the positive contributions to the alliance made by patients who achieved a reliable improvement in symptom level. Contrary to predictions, the influence of therapist behavior on process and outcome was no greater for low prognosis than for high prognosis patients. No validation for the theoretical importance of patient or therapist contributions to the therapeutic alliance in predicting outcome was obtained. An unpredicted interaction of phase of treatment and outcome was found for therapist negative contributions to the alliance.

Further research is needed before a conclusion can be drawn about the applicability of the TARS to a heterogeneous sample of psychotherapy cases.

To my husband Ken
and
to my family

ACKNOWLEDGMENTS

I wish to acknowledge the people who assisted me in this research. Dr. Norm Abeles was valuable as my dissertation committee chairperson not only for his expertise in the area of psychotherapy research, but for his ability to strike a balance between allowing me autonomy and providing me with guidance. Dr. Ralph Levine gave generously of his time and talents during the design and data analysis phases of this research project. I am indebted to my other committee members, Dr. Robert Caldwell and Dr. Bertram Karon, for their careful reading and thoughtful comments on my work.

I would like to express my appreciation to Ann Isenberg and Gary Gunther, who spent numerous hours listening to and rating audiotapes of psychotherapy sessions for this study. Finally, I would like to acknowledge the assistance and support of Timothy Eaton, with whom I collaborated in the data collection process.

TABLE OF CONTENTS

LIST OF TABLES	viii
LIST OF FIGURES.	x
<u>CHAPTER</u>	
I. INTRODUCTION	1
II. REVIEW OF THE LITERATURE.	6
Concept of the Therapeutic Alliance	6
History	6
Generalization of the concept	10
Core components of the therapeutic alliance.	12
Patient contributions	13
Therapist contributions	14
Course of the alliance.	15
Research Related to the Therapeutic Alliance.	16
Influential findings.	16
Client-centered process variables	18
Measuring the therapeutic alliance.	19
Predicting the strength of the therapeutic alliance.	20
Patient variables in relationship to outcome.	21
Therapist variables in relationship to outcome.	27
Course of the alliance.	28
Early indicators of the alliance and outcome	30
Phase of treatment and outcome: Patient contributions	31
Phase of treatment and outcome: Therapist contributions	33
Interaction of patient predisposition with outcome.	36
Conclusions from the therapeutic alliance research	40
Clinical Significance of Outcome Criteria	42
The evaluation of psychotherapeutic outcome	42
Criteria for clinical significance.	45

III.	OBJECTIVES AND HYPOTHESES	49
	Statement of Problem and Objectives	49
	Hypotheses.	53
IV.	METHOD.	56
	Participants.	56
	Procedure	57
	Variables	58
	Instruments	63
V.	RESULTS	73
	Design and Overview of Statistical Analyses . .	73
	Classification of Subjects.	75
	Reliability	76
	Hypotheses Testing Analyses	78
	Prognosis Measure	89
	Outcome	94
	Phase of Treatment.	97
	Intercorrelations Between Alliance Subscales. .	98
	Summary of Results.	100
VI.	DISCUSSION.	103
	Prognosis for the Alliance.	105
	Prognosis for the Alliance and Outcome.	108
	Patient Contributions to the Alliance	110
	Therapist Contributions to the Alliance	118
	Course of the Alliance.	124
	Outcome	126
	Validation of the TARS.	130
VII.	SUMMARY AND CONCLUSION.	137
	Therapeutic Alliance.	137
	Applicability of the TARS	144
	Clinically Significant Criteria for Outcome . .	145
	Conclusion.	146
APPENDIX		148
	Manova Summary Tables	148
LIST OF REFERENCES		152

LIST OF TABLES

TABLE

1.	Gross Pathology Index Data Used in Determining Outcome Criteria.	60
2.	Mean Intensity Scores for the Patient Positive Contribution Scale	79
3.	Mean Intensity Scores for the Patient Negative Contribution Scale	80
4.	Summary of 2 (Prognosis) x 3 (Outcome) x 3 (Phase) Manova Results for the Patient Positive Contribution Scale	82
5.	Summary of 2 (Prognosis) x 3 (Outcome) x 3 (Phase) Manova Results for the Patient Negative Contribution Scale	83
6.	Mean Intensity Scores for the Therapist Positive Contribution Scale	86
7.	Mean Intensity Scores for the Therapist Negative Contribution Scale	87
8.	Summary of 2 (Prognosis) x 3 (Outcome) x 3 (Phase) Manova Results for the Therapist Positive Contribution Scale	90
9.	Summary of 2 (Prognosis) x 3 (Outcome) x 3 (Phase) Manova Results for the Therapist Negative Contribution Scale	91
10.	Intercorrelations Between TARS Subscales for Each Phase of Treatment	99
A-1.	Summary of 2 (High vs. Low Outcome) x 3 (Phase) Analysis of Variance for Patient Positive Contribution Scale	148
A-2.	Summary of 2 (High vs. Low Outcome) x 3 (Phase) Analysis of Variance for Patient Negative Contribution Scale	149

A-3.	Summary of 2 (Reliable Change vs. No Change) x 3 (Phase) Analysis of Variance for Therapist Positive Contribution Scale: Low Prognosis Patients.	150
A-4.	Summary of 2 (Reliable change vs. No Change) x 3 (Phase) Analysis for Variance for Therapist Negative Contribution Scale: Low Prognosis Patients.	151

LIST OF FIGURES

FIGURE

1. Outcome x Phase interaction for Therapist
Negative Contribution Score 96

INTRODUCTION

A relationship between two people, a relationship in which a person in distress seeks the assistance of another person professionally qualified to help (Tarachow, 1963), is the unifying element in the myriad forms of individual psychotherapy which have evolved since Sigmund Freud's introduction of psychoanalysis. Regardless of variations in therapeutic technique, from the exploration and interpretation of the psychoanalyst to the executive direction of the behavior therapist, all therapy takes place within the context of a relationship. Though transference and resistance have been the aspects of the patient-therapist relationship emphasized in the psychoanalytic literature (Hartley & Strupp, 1983), the rational, positive attachment of the patient to the therapist has been recognized as "the vehicle of success (Freud, 1912, p. 105)" in psychotherapy since the early writings of Freud. The idea of an undistorted, beneficial attachment of the patient to the analyst as a prerequisite to successful psychoanalysis has been elaborated over time into a theoretical construct which impacts other therapeutic modalities and is labeled the therapeutic alliance. The therapeutic alliance can be defined as "the

observable ability of the therapist and patient to work together in a realistic, collaborative relationship based on mutual respect, liking, trust and commitment to the work of treatment" (Foreman & Marmar, 1985, p. 922).

The theoretical importance of both patient and therapist contributions to the therapeutic alliance as a prerequisite to successful outcome in psychotherapy has not been consistently borne out by research. Though the accumulation of data indicates that positive patient contributions to the alliance are associated with good outcome, the data on patient negative contributions is more equivocal. As in much of the psychotherapy research literature, the hypothesis of a significant influence of therapist behavior on outcome is not well supported in the therapeutic alliance research.

Perhaps the failure to validate empirically theory and clinical experience stems in part from the conventional approach of basing data analyses on the entire sample of patients, regardless of the potential of patients for forming a therapeutic relationship or their prognosis for outcome. There is preliminary evidence that specific alliance-related behaviors may have different implications for outcome depending upon patient predispositional variables. Significant relationships between the course of alliance and outcome may be eclipsed by combining the data of patients with high and low potentials for an alliance.

The risk of masking relationships between process and outcome by pooling the data for all patients is greater for therapist than for patient variables. While individuals with a good potential for developing a therapeutic relationship are likely to maintain a solid alliance and to achieve successful results, unless the therapist is extremely untherapeutic, the influence of therapist behavior on outcome will presumably be greater for patients with an initially poor capacity to form an alliance and to use therapy productively. Since patient factors appear to account for a significantly higher proportion of variance in outcome than therapist factors, the effect of therapist behavior is likely to be obscured when all subjects are pooled in a traditional correlational approach to statistical analysis (Suh & O'Malley, 1982). In order to elucidate the influence of therapist alliance-related behaviors on outcome, research which addresses the interaction of the course of the alliance across treatment with the patient's initial potential for the formation of a relationship with the therapist is needed.

In this study, two questions concerning the course of the therapeutic alliance were of primary interest. What therapist and patient contributions to the alliance are differentially present during the course of treatment in cases with initially similar patient potentials for a relationship and dissimilar outcomes? How does therapist

action influence patient alliance-related behavior among patients with initially high and low relationship potentials? It was anticipated that differentiating patients with high and low relationship potentials would reveal implications of therapist alliance-related behaviors for the course of patient contributions to the alliance and for outcome which have been obscured when all patients are pooled. Ultimately, it was hoped that the research would contribute toward the identification of therapist behaviors which facilitate the development and maintenance of a therapeutic alliance with patients who begin treatment with a poor potential for a working relationship and thus a poor prognosis for outcome.

Though there exist in the literature a number of instruments designed to assess the therapeutic alliance, most measures have been employed by only one group of investigators with a single population. Additional research is required to validate the use of the instruments with diverse populations under varied treatment conditions. One of the most promising measures of the alliance, the Therapeutic Alliance Rating Scale (TARS) developed by Marziali and her associates (Marzaili, Marmar, & Krupnick, 1981; Marziali, 1984), has been tried only in research on brief psychotherapy with relatively high-functioning patients, conducted by very experienced psychoanalytically-oriented therapists. The present study provided an

opportunity to assess the applicability of the TARS to research with a more heterogeneous sample of patients and therapists engaged in treatment of varying theoretical orientations and durations.

Psychotherapy outcome research is plagued by the question of whether the empirical findings have any relevance for clinical practice. Among the aspects of research most vulnerable to criticisms by clinicians is the overreliance upon group means and statistical tests in measuring outcome, with little attention to the probability of benefits for the individual patient or to the practical significance of change. It was hoped that by the use of clinically significant outcome criteria, this study would make a clinically relevant contribution to the psychotherapy research literature.

REVIEW OF THE LITERATURE

Concept of the Therapeutic Alliance

History. Despite the focus in the psychoanalytic literature on transference and resistance in the therapeutic relationship, a realistic, positive attachment of the patient to the therapist has been recognized as a prerequisite to successful treatment since the inception of psychoanalysis. In his 1913 paper, "On Beginning the Treatment," Freud defined the first aim of treatment as developing a rapport, attaching the patient to treatment and to the person of the analyst. He differentiated a conscious and unobjectionable aspect of positive transference, which facilitates analysis, from the positive transference of repressed erotic impulses, which creates resistance to change unless it is analyzed (Freud, 1912/1958).

Subsequent conceptualizations of a treatment-enhancing bond between patient and analyst were marked by a shift from emphasis on a libidinal attachment to emphasis on an alliance based on cognitive and motivational factors. Writing from the structural perspective in psychoanalysis, Sterba (1934) described a dissociation of the reality-oriented part of the patient's ego to ally with the

analyst via identification, opposing the part of the ego attached in transference to instinctual energy. His formulation implied a cognitive collaboration between patient and analyst motivated by a common goal, the patient's health. Sterba specified the interpretation of transference and the use of "we" by the analyst as the techniques of effecting this alliance. In his later writings, Freud (1937) discussed a somewhat similar pact of the analyst with the ego against the id, but conceived of transference as the patient's strongest motive for collaboration in analysis. Fenichel (1941), following in the direction of Sterba, postulated observing and experiencing components of the ego; the capacity of individual to observe and reflect upon experience was deemed essential to forming a working relationship with the analyst.

An emerging interest in the roles of patient ego development and object relations in the therapeutic relationship was evident in Zetzel's 1956 paper on transference. She stated that a certain measure of mature ego functioning and capacity for trust is a prerequisite to the development of a sound therapeutic alliance, which is essential to effective analysis. Analysis of regression in the transference situation is possible only if the patient possesses continuing adequate ego strength to maintain the therapeutic alliance at an

adult level in the face of regression. Thus the analytic technique was considered untenable with children and severely disturbed individuals. Zetzel contrasted this traditional point of view to the perspective of the object relations theorists, for whom the distinction between the therapeutic alliance and the transference neurosis was judged insignificant and the preexistence of mature ego functioning unnecessary for analysis. Regression in the transference situation was viewed as a deepening of analysis rather than a resistance which must be protected against by the therapeutic alliance.

The concept of the alliance in psychoanalytic psychotherapy has perhaps been most fully elaborated by Greenson (1965; 1967; Greenson & Wexler, 1969), who explicitly stated that the working alliance is as crucial as the transference neurosis. The influence of earlier theorists is easily seen in Greenson's definition of the working alliance :

the relatively nonneurotic, rational rapport which the patient has with his analyst....the reliable core of the working alliance is formed by the patient's motivation to overcome his illness, his sense of helplessness, his conscious and rational willingness to cooperate, and his ability to follow the instructions and insights of the analyst. The actual alliance is formed essentially between the patient's reasonable ego and the analyst's analyzing ego (1967, p 192).

Like the conceptualization by Sterba (1934), Greenson's working alliance was a cognitive collaboration, motivated by congruent goals of the patient and analyst and based

upon the patient's partial identification with the analyst. However, Greenson recognized that the working alliance, in addition to the dominant rational component, includes a mixture of "unconscious motherly and fatherly components" (1967, p. 240).

Greenson (1967) differentiated from the working alliance and the transference a third component of the patient-therapist relationship, the real relationship. By the real relationship, he referred to the undistorted, genuine relationship which is built upon the patient's realistic perception of the analyst's consistently therapeutic attitude and objectionable traits. The real relationship seems to incorporate and expand upon Freud's original conceptualization of the patient's conscious and unobjectionable affectionate feelings for the analyst. According to the author, it is the consistently therapeutic attitude of the analyst which allows the patient to develop the identification which is the core of the working alliance. In Greenson's schema, transference, the working alliance and the real relationship, though theoretically differentiated, overlap and influence one another.

Other authors have viewed the therapeutic alliance as a broader phenomenon, of which the rational collaboration of Greenson's working alliance is but one component. Dickes (1975) conceptualized the therapeutic alliance as being composed of five components: the patient's

motivation for treatment based on ego-alien symptoms; positive transference; negative transference; the working alliance; and the real relationship. Frieswyk, Colson and Allen (1984) narrowly define the working alliance as the patient's active collaboration in the work of psychotherapy, then discusses other element of the therapeutic relationship which facilitate the collaboration: the working relationship of the reasonable ego in identification with the analyst, the real relationship, a core of stable objects relations which comprise the matrix transference and the specific transference.

Generalizability of the concept. Though the concept of the therapeutic alliance derived from the psychoanalytic perspective, the emphasis upon relationship as a component of the change process has by no means been limited to one theoretical perspective. From the client-centered view of Carl Rogers (1957), the relationship was the technique; warmth, genuineness and empathic understanding on the part of the therapist were perceived as the necessary and sufficient conditions for change. Harry Stack Sullivan (1954) and the other interpersonal theorists (e.g., Havens, 1976) viewed the therapist as a participant observer in the relationship. Though some behaviorists are now giving consideration to the role of the patient-therapist interaction in the change process (e.g., Lazarus, 1974),

the therapeutic relationship has traditionally received least emphasis in the behavioral school.

Bordin (1979) postulated that the working alliance is one of the crucial factors, if not the crucial factor, in all modes of psychotherapy, though different types of working alliances are required for different therapies. He designated three components of the working alliance: an agreement upon goals, an assignment of tasks, and the evolution of a bond. Perhaps most diverse among various psychotherapies are the goals of treatment, ranging from the very circumscribed behavior therapy objectives of changing specific acts to the comprehensive psychoanalytic therapy goals of altering enduring patterns of thought, feeling, and behavior. Though the tasks of psychotherapies vary greatly, all but a few rigidly behavioral treatments require self-observation, most of them including observation of inner experience to determine motivation for behavior. Though the depth of the bond necessary for a working alliance varies with the goal and tasks of psychotherapy, some basic level of trust and attachment must be embedded in all functional therapeutic relationships. Bordin (1979) declared that it is the strength of the alliance rather than the type of alliance that is the essential component for change.

Core components of the therapeutic alliance. Despite the variations in the types of alliance required for different modes of therapy, and discrepancies in definitions of the therapeutic alliance within the psychoanalytic literature, two components seem to be consistently recognized as essential to the therapeutic alliance: an affective component and a cognitive-motivational component (Bordin, 1975; Greenson, 1967; Hartley & Strupp, 1983; Marziali, Marmar, & Krupnick, 1981). The affective component, generally identified in the psychoanalytic literature as the real relationship, is the mutual bond between the patient and therapist, based on realistic, nontransferential perceptions and genuine liking, trust and respect. The cognitive-motivational component, identified in the psychoanalytic literature as the working alliance, is the collaboration of the therapist and patient in the requisite treatment tasks toward the agreed upon goals (Hartley, 1985). While the consensus is that transference influences the real relationship and the working alliance, it stands in contrast to these realistic components of the therapeutic relationship (Frieswyk et al., 1984). Since Zetzel's 1956 paper, there has been increasing emphasis among psychoanalytically oriented psychotherapists on the therapeutic alliance as a prerequisite to effective therapy.

Patient contributions. Given the contingency of successful psychotherapy upon the formation of a therapeutic alliance, what characteristics enable a patient to establish an alliance? Not surprisingly, this issue has been primarily discussed in the psychoanalytic literature, in which a variety of aspects of relatively mature ego development are specified as prerequisites to the formation of a therapeutic alliance: the capacity for reasonably stable object relationships required to form a trusting relationship; the capacity to distance oneself from experience temporarily, observe oneself, and report these observations; the ability to comprehend and reflect upon the statements of the therapist; the capacity for logical and emotional verbal communication; and the ability to alternate between regression into fantasy and contact with reality (Dickes, 1975; Greenson, 1967). Though Bordin (1975) discussed variations in the nature of the alliance required by different psychotherapies, he designated patient characteristics commonly required across behavioral and psychodynamic treatments which are quite similar to the ego functions described in the psychoanalytic literature.

Since such patient capacities suggest a fairly high level of functioning, it is not surprising that some authors have questioned whether patients with major deficits in ego development, such as those with borderline

and narcissistic personality disorders, are able to form an alliance or engage in therapeutic work (Greenson, 1967; Langs, 1982). Others, such as Kernberg (1975), Kohut and Wolf (1978) and Masterson (1978), indicate that, with special attention to the transference, a working relationship can be established with patients with an initially poor capacity for the formation of an alliance and treatment.

Therapist contributions. A certain degree of psychological health in the therapist is recognized across theoretical persuasions as a prerequisite to effective psychotherapy and, by implication, to the development of a therapeutic alliance. Though the technical contributions of the therapist toward forming an alliance vary greatly from one mode of treatment to another, a common core of therapist characteristics within the therapeutic situation seems to be required. Greenson writes of the analyst's "consistent attitude of acceptance and tolerance" (1967, p. 3) and "consistent and unwavering pursuit of insight in dealing with any and all of the patient's material and behavior" (1965, P. 210) "in an atmosphere of serious work, straightforwardness, compassion and restraint" (1965, p. 216). Though framed within the analytic perspective, Greenson's words capture the essential requirements of a consistent attitude of respect, acceptance, and concern for the patient and a consistent commitment to the given tasks

and goals of psychotherapy. The technique of the therapist may vary greatly, from the benign neutrality of the psychoanalytic psychotherapist to the self-disclosure characteristic of some humanistic therapists, but the therapeutic attitude toward the patient is consistent.

Course of the alliance. Despite the existence of much literature on the therapeutic alliance, discussions of the course of the therapeutic alliance across treatment are infrequent. Since pretreatment patient and therapist characteristics are viewed as determining the capacity to form an alliance, it seems that precursors of the therapeutic alliance must be present from the first session of therapy. The patient's initial response to the therapist depends upon her/his history of object relations, level of ego development, and reactions to realistic characteristics of the therapist. Because the bond, or real relationship, is more easily established, it appears earlier in treatment than the working alliance (Dickes, 1975; Greenson, 1967). According to Greenson (1967), the early signs of the working alliance are typically seen in the first three to six months of analysis, after a piece of transference-resistance has been effectively analyzed. Obviously, the proponents of brief psychoanalytic psychotherapy (e.g., Malan, 1976; Mann, 1973; Sifneos, 1972) maintain that a working alliance can be developed much more rapidly. The real relationship has been

described as being predominate in the early and terminal stages of treatment, while the working alliance develops toward the end of early stage of treatment, but abates periodically as the patient approaches specific areas of conflict. As the transference which dominates the middle phase of therapy is resolved and diminishes, the real relationship expands (Greenson, 1967; Ticho, Appelbaum, Binstock, & Appelbaum, 1971).

Research Related to the Therapeutic Alliance

Influential findings. Two major empirical findings influenced the course of psychotherapy research toward an emphasis on patient and therapist relationship process variables. The first finding was the disappointing results of early psychotherapy studies which focused on pretreatment patient and therapist variables as predictors of outcome. In a review of 166 outcome studies, Luborsky and his associates (Luborsky, Chandler, Auerbach, Cohen & Bachrach, 1971) found that research frequently revealed a number of pretreatment variables to be related to outcome: patient adequacy of personality functioning, intelligence, motivation, anxiety, educational and social assets, therapist attitude and experience, and patient and therapist similarity. However, the conclusiveness of the review was limited by methodological flaws of the studies and inconsistent results; the factors which differentiated research with positive results from research with negative

results were indiscernible. Major multivariate psychotherapy outcome studies have consistently indicated that, while some pretreatment variables are statistically significant predictors of outcome, the proportion of outcome variance accounted for is only in the 5 to 10% range (Fiske, Cartwright, & Kirtner, 1964; Luborsky et al., 1980; Sloan, Staples, Cristol, Yorkson, & Whipple, 1975; Strupp & Hadley, 1979). The meager results from studies of the predictive value of pretreatment patient and therapist variables contributed to a shift in focus to process variables in psychotherapy research.

The second finding, which irrevocably altered the course of psychotherapy research, was the results of the Smith, Glass, and Miller (Smith & Glass, 1977; Smith, Glass, & Miller, 1980) meta-analysis of 475 controlled psychotherapy outcome studies. The authors concluded that psychotherapy is consistently beneficial to the patient in many ways, with no difference in the degree or type of benefit attributable to the type of psychotherapy. This conclusion relieved psychotherapy researchers of the burden of proving the general efficacy of psychotherapy, justifying the pursuit of explanations of why and with whom various types of psychotherapy are effective (Abeles, 1985). The Smith et al. results have also been interpreted by some (Shapiro & Morris, 1978) to mean that the benefits of psychotherapy are solely due to

nonspecific effects, or effects that are independent of technique, such as patient and therapist expectancy, therapist credibility, and suggestion. Thus the Smith, Glass, and Miller analysis stimulated increased interest in elucidating the relationships among variables in the process of psychotherapy and the influence of non-specific factors. Abeles (1985) offered the term "unspecified" as a more accurate alternative to non-specific, and suggested that defining the components of the therapeutic alliance makes specific some of the unspecified patient and therapist factors which influence psychotherapy outcome.

Client-centered process variables. Earlier research from a client-centered framework suggested that patient process variables have more influence on psychotherapy outcome than therapist process variables. While initial studies of the predictive value of such therapist variables as warmth, accurate empathy, and genuineness were very promising, (e.g., Truax & Mitchell, 1971), more recent research has failed to replicate these findings and the cumulative data provides inconsistent support at best for the relationship between the Rogerian facilitative conditions and outcome (see review by Parloff, Waskow, & Wolf, 1978). The results of research from the client-centered perspective on the predictive utility of patient process variables have been more convergent. In 20 of 26

studies, most of which employed the Barrett-Lennard Relationship Inventory (Barrett-Lennard, 1962), the patient's perception of the therapist-offered relationship was positively associated with outcome (Gurman & Razin, 1977). The patient capacity for experiencing, being able to experience deeply and immediately and reflect upon and report this feeling (Gendlin, 1962; Gendlin, Beebe, Cassens, & Oberlander, 1968) has been consistently reported to be positively associated with outcome in client-centered therapy (see Luborsky et al., 1971 for review). The concept of experiencing is similar to some patient abilities defined by psychoanalytic theorists as essential to the formation of a therapeutic alliance.

Measuring the therapeutic alliance. In the last five years, psychoanalytic theorists have developed a number of research instruments specifically designed to measure aspects of the therapeutic alliance (Allen, Newsom, Gabbard, & Coyne, 1984; Hartley & Strupp, 1983; Horvath & Greenberg, in press, cited in Hartley, 1985; Luborsky, Crits-Christoph, & Alexander, 1983; Marmar, Marziali, Horowitz, & Weiss, in press; Marziali, 1984; Sachs, 1983) and there has been a surge of research on the construct. Many of the instruments developed to assess the alliance have been employed by only one group of investigators with a single population. The construct of the therapeutic alliance has been operationalized in a variety of ways,

making it somewhat difficult to generalize from one study to another. The ideal therapeutic alliance instrument should assess separately the positive and negative contributions of both patient and therapist to the affective and cognitive-motivational components of the alliance.

Predicting the strength of the alliance. Though little research has been done on factors predicting the strength of the therapeutic alliance, thus far support for the influence of the pretreatment measures of patient psychopathology on the alliance is weak. Marziali (1984) reported depressive mood and symptoms of psychological disturbance to be related to ratings of patient or therapist negative contribution to the alliance only in the first session. A significant association between psychological health and the degree of patient involvement in the therapeutic process was found in another study to be largely accounted for by the correlation of psychological health with level of interpersonal relations (Moras & Strupp, 1982).

Firmer evidence has been produced in support of the theoretical assumption that a more specific aspect of patient functioning, the capacity for object relations, influences the strength of the alliance. Moras and Strupp (1982) found that pretherapy assessment of interpersonal relationships based on a clinical interview predicted up to

25% of the variance in the patient's activity, initiative, and hostility during therapy. Assessing the alliance from three perspectives, patient, therapist, and clinical judge, Marziali (1984) reported that the pretreatment social adjustment of the patient correlated significantly with judge and therapist ratings of patient negative and positive contributions to the alliance, and with patient ratings of their own and the therapist negative contributions. Ryan (1973) also found that pretreatment measures of the quality of object relations predicted the quality of alliance. Assessing process indicators of patient ability to establish a relationship, Morgan and colleagues (1982) showed that the level of patient involvement in a therapeutic alliance as early as the third and fifth sessions of treatment was predictive of patient contributions late in treatment. Thus the available research suggests that while the patient's degree of psychological disturbance is of questionable influence on the therapeutic alliance, the capacity of the patient for relatedness, present from the beginning of treatment and evident in certain predispositional and process variables, does have significant implications.

Patient variables in relationship to outcome. Though there are inconsistencies in the literature, the cumulative research results indicate that patient involvement in the therapeutic alliance is predictive of treatment outcome. A

number of measures relevant to the therapeutic alliance combine positive and negative indicators into a single dimension, a theoretically questionable practice which complicates the interpretation of results. The original Therapeutic Alliance Rating Scale (TARS) developed by Marziali, Marmar, and Krupnick (1981), was designed to measure affective and cognitive-motivational components of the therapeutic climate. The judge-scored Patient Total Contribution Scale of the TARS, which incorporates both positive and negative components of the alliance, was found to differentiate patients with the most successful outcome from patients with the least successful outcome. The Patient Involvement scale from the Vanderbilt Psychotherapy Process Scale (VPPS), which includes indicators of patient active involvement and of negative affect toward therapist, has been found to predict overall improvement ratings by nonparticipant judges and therapists, and target symptom improvement ratings by therapists (Gomez-Schwartz, 1978; O'Malley et al., 1983). The scale does not assess positive patient affect toward the therapist or negative indicators of the working alliance. The Vanderbilt Therapeutic Alliance Scale (VTAS) also combines both positive and negative factors in each scale. In contrast to the VPPS and the TARS, the Patient and Patient-Therapist Interaction subscales of the VTAS (Hartley, 1978; Hartley & Strupp, 1983) failed to discriminate between high

outcome, low outcome, and dropout patients.

While the selection by Marziali et al. (1981) of the most and least improved patients from a larger group may have maximized the relationship between process and outcome, thus accounting for the discrepancy with the results of Hartley and Strupp, the inconsistency between findings with the VPPS and VTAS are more difficult to explain. The 28 patients in the Hartley and Strupp study were taken from the slightly larger pool of patients used by Gomez-Schwartz (1978) and O'Malley et al. (1983) and outcome measures were the same, though used in a composite form in the VTAS research. While O'Malley et al. rated only the first three sessions of treatment, process variables were rated at a variety of points across treatment in the other two studies. Perhaps the inconsistent results can be accounted for by the fact that the VTAS is more inclusive than the Patient Involvement Scale of the VPPS and most therapeutic alliance measures, with the Patient Scale including such components as anxiety, defensiveness, and motivation.

From research in which positive and negative aspects of the alliance were approached as separate dimensions, the convergence of data indicates that ratings of positive patient contributions to the alliance are associated with successful outcome. Luborsky and his associates (Luborsky et al., 1983; Morgan et al., 1982) reported that scores on

their Penn Helping Alliance measures, which incorporates positive patient indicators of affective and collaborative components of the alliance, discriminated patients with successful and unsuccessful outcome. Sarnat (1975) found the Quality of Alliance Scale (Ryan, 1973), an instrument which taps some of the collaborative aspects of the alliance but which has many methodological problems, to predict continuation in treatment. The Patient Involvement Scale of the VPPS, which contains many items measuring positive collaborative behavior, was significantly associated with outcome (Gomez-Schwartz et al., 1978; O'Malley et al., 1983). A study using the original TARS (Marziali et al., 1981) and a study employing the revised TARS (Marziali, 1984) , produced evidence of a significant association between patient positive contributions to the alliance and outcome. In contrast to the positive results with several different alliance measures, Horowitz et al. (1984) reported that patient positive contributions as measured by the California Therapeutic Alliance Scale (CTAS) bore no relationship to outcome. The CTAS and both versions of the TARS are very similar in form and content to the TARS, though not all the items are identical and wording of the items varies. The two patient positive factors derived from a principal components analysis of the VTAS, tapping agreement with the therapist on goals and tasks and collaborative responsibility, also failed to

predict outcome (Hartley & Strupp, 1983).

Methodological differences may account for these inconsistent findings. In the research by the Luborsky group and in the 1981 Marziali study, indicators of the therapeutic alliance were compared between the most and least improved patients selected from a larger sample of patients, thus maximizing the probability of differences in therapy process between groups. Horowitz et al. (1984) and Marziali in her later study (1984) attempted to predict outcome from therapeutic alliance for groups of subjects unselected for outcome. While Horowitz assessed the alliance using only nonparticipant judge's ratings, Marziali measured the alliance from the perspectives of patient, therapist and clinical judge. Marziali reported that though patient and therapist-rated alliance scales correlated significantly with a variety of outcome measures, including symptom change, the judge-rated scale correlated only with patient posttherapy evaluation, therapist posttherapy evaluation, and clinical evaluation of dynamic outcome, measures not included in the Horowitz study. Thus judge-rated measures of positive patient contributions to the alliance appear to be predictive of outcome as measured from only some perspectives, unless the effect is maximized by preselecting patients on the basis of extremes of outcome.

The data on the relationship between patient negative

contributions to the alliance and outcome is more equivocal than data on positive contributions. The Patient Involvement Scale of the VPPS, which includes many items tapping patient negative affect toward therapist, was reported to predict outcome (Gomez-Schwartz et al., 1978; O'Malley et al., 1983). Using the original TARS, researchers have found Patient Negative Contributions as rated by clinical judges to distinguish most improved and least improved patients, based on composite outcome measures (Marziali et al., 1981). Patient negative contributions to the alliance as measured by the CTAS have been demonstrated by Horowitz and colleagues (1984) to be negatively associated with symptom reduction. In contrast, the Marziali 1984 study produced no relationship between negative TARS signs of patient alliance and symptom change, though Negative Patient Contributions correlated with evaluations of outcome by both therapy participants and with clinical evaluation of dynamic change. It is difficult to account for the incongruence between the Horowitz (1984) and Marziali (1984) findings regarding the association between the judge-rated Patient Negative Contribution and outcome, given the similarity of the two scales. The Patient Resistance factor derived from the principal components analysis of the VTAS (Hartley, 1978) and negative ratings on the Penn Helping Alliance counting signs measure (Luborsky et al., 1983) have not been found

to relate significantly to outcome.

Therapist variables in relationship to outcome.

Theoretical assumptions about the influence on psychotherapy outcome of therapist contributions to the alliance have meager support at best. Research with the Penn Helping Alliance Rating method (Morgan et al., 1982), VTAS (Hartley & Strupp, 1983) and Vanderbilt Negative Indicator Scale (VNIS, Sachs, 1983) has demonstrated no association between therapist alliance-related behavior and outcome. The therapist-offered relationship as measured by the VPPS has been positively associated only with the overall rating of patient improvement by the therapist (O'Malley et al., 1983) or the therapist rating of improvement on target complaints (Gomez-Schwartz et al., 1978). Results from research on therapist variables with the TARS and the CTAS are inconsistent, though the inconsistency seems to be largely due to the perspective of the raters of the alliance: patient, therapist, or judge. Therapist positive and negative contributions to the alliance as rated by nonparticipant judges were found to bear no relationship to outcome by Marziali et al. (1981) and Horowitz et al. (1984). Similarly, from her 1984 study, Marziali reported no association between mean judge-rated therapist behavior across treatment and outcome, with the exception of a significant correlation between Therapist Positive Contribution and patient evaluation of

outcome. She did find significant relationships between therapist and patient-rated therapist behavior and symptom improvement, patient and therapist evaluation of outcome, and dynamic change. The significant findings were primarily with regard to Therapist Positive Contributions.

The failure of clinical judge ratings of therapist contributions to the therapeutic alliance to predict outcome, while consistent with convergent evidence throughout psychotherapy research that therapist variables account for little of the variance in outcome, seriously challenges theoretical assumptions. Horowitz et al. (1984) postulated that the use of highly experienced therapists may preclude significant effects of therapist behavior because the range of scores on therapist rating scales is too narrow. Research employing a more heterogeneous group of therapists might reveal a significant effect of therapist alliance-related behavior on outcome.

Course of the alliance. The empirical data on the development of the therapeutic alliance during the course of treatment is conflicting. Marziali (1984) reported a significant sessions effect for patient positive and therapist positive contributions to the alliance, with average scores for the first and third sessions of treatment significantly lower than for the last session. No similar trends were noted for the negative scales. In contrast to Marziali, Hartley and Strupp (1983) found that

the mean alliance rating on the Patient Subscale of the VTAS decreased significantly from the first to the last session. Research by the Luborsky group demonstrated no significant change in the helping alliance from the beginning to the end of treatment, and scores for individual patients were moderately correlated from early to late treatment (Luborsky et al., 1983; Morgan et al., 1982). Gomez-Schwartz and her associates (1978) found no significant differences in VPPS Patient Involvement scores attributable to time sequence in treatment.

Very interesting findings were produced when Hartley and Strupp (1983) looked at therapeutic alliance ratings on the VTAS at five points in time across treatment. Averaged across outcome groups, the Patient Subscale, Interaction Subscale and Total Alliance Subscale peaked at the 25% point in treatment. The effect approached significance ($p < .07$) for the therapist subscale. Though there was no main effect for outcome, the authors compared high and low outcome groups at the 25% point in treatment, discovering that the high outcome group was significantly higher on the therapist, patient, and total alliance subscales. An outcome by sessions analysis of variance for the principal components of the VTAS also produced a main sessions effect for Patient Resistance, Motivation, Responsibility, and Anxiety. Though the authors did not conduct least significant difference tests between sessions across

outcome groups, examination of the means suggests a peak scores on those components at the 25% point in treatment, with a downward trend through the remainder of treatment.

Early indicators of alliance and outcome. The literature indicates that the relationship between patient and therapist contributions to the therapeutic alliance and outcome may vary considerably with the phase in treatment at which the alliance is assessed. O'Malley, Suh, and Strupp (1983) reported that the Patient Involvement Scale of the VPPS showed little relationship to outcome in the first session, but by the third session accounted for 19 to 28% of variance in all the outcome measures. Ratings on the Patient Qualities and Patient-Therapist Interaction subscales of the VNIS were significantly associated with a composite global measure of outcome for the third, though not the first and second, sessions of treatment (Sachs, 1983). Such findings suggest that though assessment of patient alliance variables in the initial sessions of treatment via the patient subscales may not be useful in predicting the patient's eventual improvement, failure to develop these elements in the therapeutic relationship by the third session may have negative implications for outcome. Contradicting this hypothesis, Marziali (1984) reported a number of significant associations between patient and therapist positive alliance ratings in the initial session and outcome. The number of significant

correlations did increase from session one to session three. An analysis of the Marziali data for an outcome by sessions effect would have been very interesting.

Phase of treatment and outcome: Patient contributions.

Luborsky et al. (1983) reported a stage of treatment by outcome interaction for a score reflecting patient positive indicators of the alliance minus patient negative indicators. Positive helping alliance scores of most improved patients increased over treatment and negative scores did not, while negative helping alliance scores of least improved patients increased and there was little change in positive scores. The increase reported in positive helping alliance signs among the most improved patients is consistent with the Marziali (1984) results across outcome groups. Luborsky 's subjects were the extremes on the continuum of outcome for a large group of patients, while Marziali used a correlational approach in which subjects were not preselected on outcome. Since most patients benefit from psychotherapy, it is possible that all of Marziali's subjects, unlike the least improved patients in the Luborsky study, had relatively successful outcomes.

A study by Crowder (1972) in which the Leary Circumplex of Interpersonal Behavior was used has relevance for the interaction of the course of patient contribution to the therapeutic alliance across treatment

with outcome. Crowder assessed the occurrence of four categories of behavior in therapist and patient in early, middle, and late therapy. Hostile-competitive and passive-resistant behavior could be considered negative indicators for the alliance in both patient and therapist. Support-seeking behavior by the patient and supportive-interpretive behavior by the therapist could be considered positive indicators for the alliance. Though the author did not discuss mean scores on these behaviors across treatment as they related to outcome, he did report significant differences between outcome groups at different points in treatment. Successful patients were more hostile-competitive and less passive-resistant and supportive-interpretive than unsuccessful patients in early therapy. By the middle of therapy, unsuccessful patients were only more passive-resistant. The outcome groups showed no differences by late in treatment.

To obtain his early therapy ratings, Crowder (1972) averaged scores for the first three sessions of treatment. His results in combination with the findings of Gomez-Schwartz (1978), Marziali (1984) and Sachs (1982) provide a fairly strong argument that by the third session of treatment, patient alliance-related behaviors have significant implications for outcome. However, findings of Crowder that successful patients are more hostile competitive than unsuccessful patients early in treatment

is in conflict with the results of the other researchers. Results using the Leary Circumplex must be interpreted with caution since the measure was not specifically designed to assess therapeutic alliance and the behavioral categories are likely to be overinclusive.

Phase of treatment and outcome: Therapist contributions.

Assessing the therapeutic alliance in sessions one and three of treatment, Marziali (1984) reported some significant relationships of therapist behavior to outcome not found when data was averaged across all sessions. Therapist alliance-building behavior in sessions one and three as rated by patients, therapists and judges was significantly related to outcome. An unexpected finding was that clinical judges' ratings of Therapist Negative Contributions in early sessions were significantly positively associated with symptomatic and dynamic improvement. The Marziali results suggest that significant relationships between the therapist's alliance-facilitating or inhibiting behavior at various points in treatment and outcome may be obscured when alliance ratings are averaged across treatment.

Some earlier psychotherapy process research employing the Leary Interpersonal Circumplex (Leary, 1957) lends support to the hypothesis that the relationship of therapist alliance-related behaviors to outcome is best studied by examining the interaction of behavior at various

points in treatment with outcome. Employing the Leary Circumplex, Dietzel and Abeles (1975) studied complementary interactions between patient and therapist in early, middle and late phases of psychotherapy. Complementary interactions are high probability sequences of behavior which, "are reinforcing to both participants, contribute to the maintenance of existing behavior patterns, reduce anxiety, and promote increased relatedness" (p. 264). Dietzel and Abeles (1975) found no relationship between mean therapist complementarity across treatment and outcome. However, in the middle phase of therapy, successful therapists responded to their patients with a significantly lower level of complementarity than unsuccessful therapists. These results seem to be in keeping with the course of the therapeutic alliance as theorized in the psychoanalytic literature, since therapist complementarity may be critical to establish the bond of the real relationship which predominates in early phases of treatment, but some aspects of complementary behavior on the part of the therapist would interfere with the development of the working alliance, or cognitive-motivational, aspect of the therapeutic alliance which develops later. The trends discussed by Hartley and Strupp (1983) in their research with the VTAS are congruent with the results of Dietzel and Abeles. They reported Positive Climate, primarily a therapist positive contribution

factor, to be significantly lower for high outcome dyads than for low outcome dyads in the median session of treatment. The Hartley and Strupp results must be interpreted cautiously, since comparisons between means for outcome groups were not statistically justified due to the absence of an outcome by sessions interaction.

Crowder (1972) found no differences between successful and unsuccessful therapists in the middle phase of treatment. Early in treatment, successful therapists engaged in what would appear to be both alliance-facilitating and alliance-inhibiting behaviors, being less passive-resistant but more hostile-competitive than unsuccessful therapists. Differences in therapist behavior in the final phase of treatment were more in keeping with the clinical literature. Therapists of successful dyads were significantly more supportive-interpretive and less hostile-competitive and passive-resistant than unsuccessful therapists.

Though results indicating that successful therapists were more hostile-competitive in the early phase of treatment than their unsuccessful counterparts were unexpected, they are consistent with Marziali's (1984) findings that judge's ratings of the therapist's negative contributions to the alliance in early sessions were positively correlated with symptom improvement and dynamic change. Contradicting theoretical assumptions, the

empirical data suggests that perhaps some negative behavior in response to the patient early in therapy is necessary to challenge the patient's complacency with her/his characteristic patterns of interaction and to facilitate change. The level of functioning of the patient seems to be an important consideration here. Marziali's (1984) patients were neurotic outpatients with whom a circumscribed focus could be maintained and Crowder's (1972) patients were college students presenting at a counseling center, both groups likely to be high-functioning. Negative therapist behavior early in treatment could be counter-productive with less healthy patients.

Interaction of patient predisposition with outcome.

There is preliminary evidence for an interactive effect of patient predispositional variables and the therapeutic alliance on outcome. The research of Horowitz and his colleagues (1984) suggested that indicators of the alliance have different meaning for patients depending upon level of motivation. Among patients with low motivation, high patient positive contribution ratings were associated with better outcome, while high patient negative contribution ratings were associated with poorer outcomes. Among patients with high motivation, more positive contributions to establishing a therapeutic alliance were associated with poorer outcomes, while high negative contribution ratings

were associated with better outcome. The authors (Horowitz et al., 1984) postulated that although patients with low motivation may become too overwhelmed by negative feelings toward the therapist to work through the reactions, the negativity of highly motivated patients toward the therapist may represent constructive therapeutic work because feelings toward the therapist are actively being addressed. The development of a therapeutic alliance may be sufficient to sustain the involvement of an initially poorly motivated patient in the therapeutic process. Horowitz et al. (1984) suggested that evidence of a positive alliance on the part of a highly motivated patient may represent a defense against negative feelings toward the therapist. The interactional model employed by Horowitz et al. revealed no influence of therapist variables on outcome.

Using a traditional correlational approach with VPPS data from the first three sessions of therapy, O'Malley, Suh, and Strupp (1983) had found little relationship between mean or session by session therapist behavior and outcome. In an innovative approach to the psychotherapy process research, Suh and O'Malley (1982) classified the patients into high and low prognosis groups based on process variables, then cross classified patients according to actual high and low outcome to create four groups. Rather than attempt to directly predict a relationship

between the prognostic variable and outcome, the authors employed a failed predictions model, hypothesizing that cases in which the patients' outcomes were congruent with their prognoses could be differentiated from those for whom predictions failed by therapist behavior. When patterns of change in therapist behavior across the first three sessions, rather than the ratings of therapists for each session, were evaluated for each of the four groups, results emerged which suggest that therapist alliance-related behaviors do have implications for outcome. For patients with good prognoses who achieved the predicted successful outcome, therapists tended to have an initially positive reaction, with an increase across time in warmth and exploration. In contrast, for patients with a high prognosis who failed to achieve the predicted successful outcome, therapists had an initially negative attitude which increased across time, while therapist warmth and exploration decreased. Therapists for low-prognosis patients who, as predicted, had poor outcome, characteristically responded with an initially highly negative attitude and a decrease in warmth across treatment. For patients who achieved a successful outcome despite a poor prognosis, therapists exhibited an increase in warmth and exploration over the first three sessions. Suh and O'Malley also found that the association between Patient Participation and outcome, which was significant

for session three of therapy for a variety of outcome measures, was strengthened when change scores from session one through three were used.

Suh and O'Malley (1982) contend that traditional correlational analyses of psychotherapy process data are likely to obscure the influence of therapist variables on outcome. "Good" psychotherapy candidates are likely to obtain a successful treatment outcome under most circumstances and are unlikely to elicit negative reactions from therapists, so that therapist contributions to the alliance are likely to have limited impact on outcome variability with high prognosis patients. Poor psychotherapy candidates, on the other hand, are much more likely to be lacking the capacities for achieving high outcome with minimal assistance and to elicit a negative therapist response. Thus therapist behavior is postulated to have significantly more impact on outcome among low prognosis patients. Because patient variables apparently account for a much larger proportion of variance in outcome than therapist variables, the influence of therapist variables on outcome is likely to be obfuscated in traditional correlational analyses in which high and low prognosis patients are pooled.

Taking a similar approach to the failed predictions model of Suh and O'Malley (1982), Foreman and Marmar (1985) studied the course of the patient's negative contributions

to the alliance using the CTAS. Though all six patients in the study scored high on patient negative contributions in session 2, half achieved significant improvement in psychotherapy and half failed to improve. The authors reported that the negative contributions of the improved patients decreased substantially through the course of treatment, while the negative contributions of unimproved patients remained high throughout therapy. Thus, among a group of patients whose initial contributions to the alliance would suggest a poor prognosis for outcome, improvement in the alliance was associated with better outcome. The authors also noted a difference in therapist technique between the two outcome groups. Therapists who succeeded in promoting an improved alliance and good outcome made interpretations specifically related to the alliance, while unsuccessful therapists avoided addressing the poor alliance.

Conclusions from the therapeutic alliance research.

The frequent contradictions in the therapeutic alliance research literature, partially a consequence of differing measures and methodologies, also reflect the complexity of the relationship of the alliance to process and outcome in psychotherapy. While the convergence of data indicates that the patient's contributions to the alliance influence outcome, there is evidence that the implications of the alliance-related behavior for outcome vary with certain

patient predispositional variables and with the timing of their occurrence in the course of therapy. The empirical data on therapist contributions to the alliance presents an even more perplexing picture. Theoretical assumptions about the importance of therapist contributions to the alliance in determining outcome have not been well-supported empirically. However, some characteristics of the therapeutic alliance research may be operating to obscure therapist influence. The use of highly experienced therapists who differ little in their behavior, thus providing little variance in alliance ratings, may preclude finding significant associations between therapist alliance-related behaviors and outcome. The effect of therapist variables is also likely to be masked by the traditional approach of pooling data from all patients for statistical analyses. Unless the therapist is destructive, therapist contributions may have little effect on the development of the therapeutic alliance or on outcome with psychotherapy candidates who begin treatment with a good capacity to develop a relationship and to make use of therapy. Therapist influence is likely to be much greater on patients who begin treatment with poor prognosis due to limited ability to establish an alliance. The tendency of patient factors to account for a significantly higher proportion of the variance in psychotherapy outcome than therapist factors would cause therapist influence to be

obscured when a conventional correlational approach to statistical analysis is used.

Thus studying the therapeutic alliance as it relates to patient predispositional variables may be even more critical to understanding the influence of therapist contributions than to understanding the influence of patient contributions. The complexity of the therapeutic alliance as revealed by empirical results thus far dictates a need for a complex approach to future research which considers the interaction of patient predispositional variables with the course of patient and therapist contributions to the alliance across treatment as they relate to outcome.

Clinical Significance of Outcome Criteria

The evaluation of psychotherapeutic outcome. The need for multidimensional sources and types of outcome criteria has been a focal issue in the literature on the evaluation of psychotherapy outcome (e.g., Bergin & Lambert, 1978; Luborsky et al., 1971). Strupp & Hadley (1977) presented an excellent discussion of the issue and proposed a tripartite model of outcome criteria which has become a prototype in the field of psychotherapy research. Under the tripartite model, outcome is assessed from the perspectives of society, the individual, and the mental health professional, implying measures of observable behavior, the individual client's sense of well-being, and

patient functioning as compared to theoretical standards of psychological health.

Relative to the emphasis on the source and content of outcome criteria, the issue of outcome measurement methodology has been neglected by most authors. Mintz, Luborsky, and Cristoph (1979) discussed the advantages and disadvantages of a number of measurement methodologies employed by psychotherapy researchers. The most frequently used outcome measure in research on traditional psychotherapy, probably because of its simplicity, is a global rating of success or improvement on a single scale (Luborsky et al., 1971). Such global measures, however, are particularly susceptible to bias and ambiguity as to what is being rated, which makes generalization from patient to patient or study to study difficult. The gain score from pretreatment to posttreatment, attractive in its face validity, often presents a some statistical problems: statistical unreliability and correlation with initial level of symptomatology due to ceiling effects and regression to the mean when outcomes of extreme groups are compared. As test-retest reliability decreases, these problems are exacerbated. Final adjustment status alone has also been employed as the criteria of whether outcome is adequate. A drawback to this criteria is that patients who began treatment at a high level of functioning and achieved no statistically reliable change are equated with

patients who make large, positive gains in functioning in order to obtain the final adjustment status (Mintz, Luborsky, & Christoph, 1979).

One measurement methodology, the residual gain score, offers the advantage of statistically compensating for the correlation of amount of change with initial level of functioning. The individual's simple gain score is rescaled relative to the mean change made by others who began treatment at the same level of functioning. The residual gain score thus reflects the individual's change relative to the amount of change that would be predicted based on initial level of functioning. A disadvantage to the residual gain score is the complexity of interpretation of statistical analyses, because the adjusted scores differ so greatly from the raw data (Mintz, Luborsky, & Cristoph, 1979).

The difficulty of finding an adequate measurement methodology for psychotherapy outcome is compounded by the question of whether the measured benefits of psychotherapy to a patient are clinically meaningful. Statistically significant differences in outcome between groups are often of little practical importance. Traditional statistical comparisons between outcome for two or more groups of patients are based on mean scores and provide no data as to the proportion of patients in each group who improve, making it difficult to use research results to estimate the

likelihood that a specific individual will gain from psychotherapy (Jacobson, Follette, & Revenstorf, 1984). There is growing recognition in the field that conventional statistical tests of significance must be supplemented by tests of clinical significance and by reports of the proportion of improved patients if psychotherapy research is to have practical implications for clinical work (e.g., Hugdahl & Ost, 1981; Kazdin & Wilson, 1978).

Criteria for clinical significance. Jacobson, Follette, and Revenstorf (1984), suggesting that standardized criteria for clinical significance be adopted, proposed a two-fold criterion which could be applied across a variety of clinical problems: the patient's posttest level of functioning and the statistical reliability of change. They defined a clinically significant change in therapy as "when the patient moves from the dysfunctional to the functional range during the course of therapy on whatever variable is being used to measure the clinical problem" (p. 340). The authors specified three possible ways to operationalize the question of adequate posttest level of functioning. The most stringent criterion would require that measures of posttest functioning fall more than two standard deviations, in the functional direction, from the mean for the dysfunctional population. Less stringent criterion would require that posttest functioning fall within two standard deviations of the mean of the

functional population. Jacobson et al. recommended a third criterion when there is significant overlap between the functional and dysfunctional population. The third criterion would determine whether the posttest score would statistically be more likely to place the patient in the functional or the dysfunctional population. Using the Jacobson et al. approach, the choice of criterion for clinical improvement will depend in part upon the availability of norms for functional and dysfunctional population and upon the degree of overlap between the two population distributions. The authors acknowledged that return to normal functioning may be too demanding an outcome criterion for some populations.

In order for change in psychotherapy to be clinically significant, it must be of large enough magnitude to rule out the possibility that the improvement from pretest to posttest was due to chance. Jacobson and his colleagues (1984) recognized a variety of possible criteria for statistical reliability of change, but recommended the use of a reliable change index (RC) calculated by dividing the pre-post difference score for each patient by standard error of measurement. The standard error of measurement is equivalent to the spread of scores that repeated testing would produce given that no actual change had occurred. The probability of obtaining an RC exceeding ± 1.96 if no actual change has occurred is less than 5%. The authors

acknowledge a disadvantage in RC being dependent upon the reliability of the change measure, since a small magnitude of change can produce a large RC if the instrument is highly reliable. However, the use of the additional criteria of clinically adequate functioning provides a check against this problem.

Though there is no consensus yet on criteria for clinical significance, Jacobson et al. (1984) provide conventions based on sound clinical and psychometric rationale which can be applied to a variety of clinical problems. Research that, in addition to statistical differences between group means, reports the proportion of individuals in a group who achieve an acceptable level of functioning in therapy may reveal treatment effects which are obscured by high variability. Unlike average improvement scores, description of the proportion of improved patients in a group permits estimates of the probability that a given patient in a clinical setting will benefit from treatment. Adopting clinically significant criteria for outcome seems to be a step toward bridging the gap between psychotherapy research and clinical application. The movement toward standardized criteria for clinical significance will facilitate comparisons of efficacy of psychotherapy from one area to another and inhibit the tendency to allow standards for successful outcome to be eroded by adjustment to the limits of

therapeutic technology (Jacobson et al., 1984).

OBJECTIVES AND HYPOTHESES

Statement of Problem and Objectives

Though a positive, collaborative bond between patient and therapist is widely recognized by psychodynamic theorists and clinicians as a prerequisite to successful psychotherapy, empirical support for the relationship between the therapeutic alliance and outcome has not been consistent. The dissonance between theory and research results may stem in part from approaches to research which sacrifice the complexity of the therapeutic alliance. There are indications in the literature that comparing alliance scores averaged across treatment obscures variations in the course of the alliance during therapy which influence outcome. Despite preliminary evidence that alliance-related behavior may have different implications for outcome depending upon patient predispositional variables, data analyses are conventionally based on the entire sample of patients, regardless of patient predispositional variables. The initial capacity of the patient for establishing a relationship seems particularly likely to influence the significance of patient and therapist alliance-related behavior for outcome. Since patient factors appear to account for a significantly

higher proportion of variance in outcome than therapist factors, the effect of therapist factors is especially likely to be obscured when all subjects are pooled in a traditional correlational approach to statistical analysis.

The first objective of this research was to address the complexity of the therapeutic alliance by studying the interaction of initial patient prognosis for establishing a therapeutic relationship, the course of the therapeutic alliance across treatment, and outcome. Two questions were of central interest. How do therapist and patient contributions to the alliance during the course of treatment differ for cases with originally similar patient potentials for establishing a relationship but dissimilar outcomes? How does therapist action influence patient alliance-related behavior among patients with initially high and low relationship potentials? It was anticipated that differentiating patients with high and low relationship potentials would reveal implications of therapist alliance-related behaviors for the course of patient contributions to the alliance and for outcome which have been eclipsed when all patients are pooled.

While a number of research instruments have been designed to gauge the strength of the therapeutic alliance, most measures have been applied by only one group of investigators with a single population. The second purpose of this study was to assess the validity of one of the more

promising therapeutic alliance measures, the TARS (Marziali, 1984), for use with a heterogeneous sample of patients and therapists engaged in a wider range of treatment than in previous studies. The TARS has been employed only in research on brief psychotherapy with high-functioning patients, conducted by very experienced psychoanalytically-oriented psychotherapists. Clients in this research varied considerably in their degree of psychopathology, with many not sufficiently high-functioning to be appropriate candidates for time-limited psychotherapy. While psychodynamic psychotherapy was the most common treatment approach employed by therapists in this study, a variety of theoretical perspectives were represented. Therapists were comparable to a typical community mental health center staff in terms of experience, ranging from being first year practicum students in clinical psychology to having several years of post Masters degree clinical experience. It was hoped that research employing therapists with a wide range of skills would prove particularly fruitful, since the failure of past research to reveal a significant influence of therapist alliance-related behavior on outcome may in part be an artifact of the limited range of scores on the therapist scales of alliance measures.

The questionable clinical relevance of conventional statistical approaches to outcome measurement in

psychotherapy research has deservedly been a target of criticism by practitioners. The third purpose of the research was to examine the relationship between the therapeutic alliance and psychotherapy outcome when outcome, rather than being determined solely by comparisons between group means, was defined in clinically significant terms and the proportion of patients in each group who benefit significantly was considered. The use of clinically significant outcome criteria is seen as a step toward increasing the clinical relevance of empirical work on the therapeutic alliance.

To accomplish the specified objectives, audiotapes of psychotherapy sessions were rated for the presence of positive and negative patient and therapist contributions to the therapeutic alliance, using the TARS. Patients were classified as having a high or low potential for establishing an alliance (Prognosis) based on TARS ratings of patient contributions to the alliance during the first session of treatment. For each patient, a session from the early, middle and late phase of treatment was also rated on the TARS for indications of patient and therapist positive and negative alliance-related behavior. Patients were classified as achieving clinically significant improvement (High Outcome), statistically reliable but not clinically significant improvement (Medium Outcome) or no improvement (Low Outcome) based on their scores on the Global Pathology

Index of the SCL-90-R.

Hypotheses

H₁: Patient positive and negative contributions to the therapeutic alliance in the first session of treatment will be predictive of the patient's ability to form and maintain an alliance throughout treatment.

Specific prediction: High prognosis patients will have higher Patient Positive and lower Patient Negative Contribution scale scores averaged across early, middle and late treatment sessions than low prognosis patients.

H₂: Patients with an initially poor potential for developing an alliance will have greater variability in outcome than patients with a good potential for an alliance.

Specific predictions: The variance of outcome classification scores will be greater for low prognosis than for high prognosis patients.

H₃: Among patients who achieve significant change, positive patient contributions will be greater in late than in early sessions of therapy.

Specific prediction: There will be a significant phase of treatment effect for the Patient Positive Contribution scale among high and medium outcome patients, with higher ratings on the scale for late than for early sessions.

H₄: There will be a significant difference between patients who achieve clinically significant change and patients who achieve no reliable change in the course of patient positive and negative contributions to the alliance.

Specific prediction: There will be a significant main effect of outcome, or a significant Phase x Outcome interaction, for the Patient Positive and Patient Negative Contribution scale scores.

H₅: Within patients with a poor capacity for establishing a therapeutic alliance, therapist positive contributions to the alliance will be positively related to successful outcome; therapist negative contributions will be negatively related to successful outcome.

Specific prediction: There will be a significant outcome effect for the Therapist Positive and Therapist Negative Contribution scales within low prognosis patients.

H₆: Therapist alliance-related behavior will be more strongly associated with patient alliance-related behavior for low prognosis patients than for high prognosis patients.

Specific prediction: There will be a larger correlation between therapist and patient subscales at each phase of treatment for low prognosis patients than for high prognosis patients.

METHOD

Participants

Clients. The patients in the research were primarily working and middle class adults seen in psychotherapy at the Michigan State University Psychological Clinic who agreed to participate in the Clinic's psychotherapy research program. The study included the 32 treatment cases at least 10 sessions in duration for whom complete data was available. The number of sessions for each treatment case range from 14 to 71, with a median of 29 sessions. There were 8 male and 24 female patient-participants ranging in age from 20 to 57, with a median age of 29.

Therapists. Therapists for the Psychological Clinic's psychotherapy research project are graduate students in clinical psychology, recruited from the Clinic practicum students and interns. Informed consent for the participation of the therapists is obtained at the beginning of each academic year.

Therapists for the study range in experience from students in first year practicum to advanced students with several years of post-Masters degree experience. The range of experience of therapists is comparable to the range of

experience typically found in a community mental health setting. Though the predominate theoretical orientation of the therapists is psychodynamic, including psychoanalytic and interpersonal perspectives, other orientations to treatment are represented.

Procedure

Clients seeking treatment at the Psychological Clinic are routinely informed of the Clinic's psychotherapy research project during their intake interview, and asked if they would be willing to participate. Informed consent of the patient-participants is obtained during the intake interview. After intake but prior to their first meeting with their therapist, patients agreeing to participate in the research project completed the SCL-90. The first session, third session, every fifth session subsequent to the third, and the last session of therapy were audiotaped. After termination, the SCL-90 was again completed. Before therapy began, during the course of treatment, and at termination, patients completed a number of other self-report measures not relevant to the present study.

For each patient, audiotapes of the first session and three other sessions spanning the course of treatment were selected for rating. The first, middle, or last 15 minutes of each session were randomly selected to be rated on the TARS. All audiotape segments for the study were recorded on a master tape in random order, identified only

by a code number.

Judges were two advanced graduate students in clinical psychology who met for 20 hours of training and practiced rating approximately 40 audiotaped psychotherapy segments not used in the study prior to rating the audiotapes for the study. There were approximately 12 additional hours of training during the course of data collection. Each psychotherapy segment used in the study was rated by both judges, who were blind to the hypotheses of the study and the classification of each audiotape segment as to patient prognosis, phase of treatment, and outcome.

Variables

Prognosis. For each patient, the first, middle or last 15 minutes of the initial psychotherapy session were randomly selected to be rated on the TARS by clinical observers. Clients were classified as having a high or low prognosis for establishing a good therapeutic alliance on the basis of their scores on the Patient Positive Contribution Scale and the Patient Negative Contribution Scale of the TARS. Each of the 11 items on the positive scale and the 10 items on the negative scale are rated on a 6-point "intensity of presence" scale from 0, not present, to 5, intensely present. In order to weight positive and negative contributions equally, ratings of items on each scale were summed, then divided by the number of items in the scale, to create a mean intensity score for

the scale. A Prognosis score was calculated for each patient by subtracting the mean intensity score for patient negative contributions from the mean intensity score for patient positive contributions. There was a possible range of Prognosis scores from -5 to 5, with a low score indicating a poor potential for establishing an alliance and a high score indicating a greater potential. Though patient alliance-related behavior is undoubtedly influenced by therapist behavior from the beginning of treatment, it is assumed that patient behavior in the first session is reflective of a core capacity for object relatedness and thus of a potential to establish a therapeutic alliance.

Phase of treatment. The third session of therapy was selected to represent the early phase of treatment for each patient. The middle phase of treatment was represented by a session after 40% but before 60% of treatment has been completed, as close as possible to the 50% point in therapy. A session after 80% of treatment had been completed, as close as possible to the 90% point in therapy, was chosen to represent the late phase of treatment.

Outcome. Clients were classified as to successfulness of outcome based on an application of the criteria for clinical significance suggested by Jacobson et al. (1984) to scores on the Global Pathology Index (GPI) of the SCL-90-R. Because there is overlap between the dysfunctional

and functional population distributions on the Gross Pathology Index (Derogatis, 1977), clinically significant change was determined by whether the level of posttest functioning indicated that the patient was statistically more likely to be in the functional than the dysfunctional range.

Table 1

Gross Pathology Index Data Used in Determining Outcome Criteria

Symbol	Value
x_0 = mean for randomly selected nonpatients	.31
x_1 = pretreatment mean for study patients	1.45
s_0 = standard deviation for nonpatients	.31
s_1 = pretreatment standard deviation for study patients	.58
r_{xx} = test-retest reliability of Gross Pathology Index	.84

Using the data presented in Table 1, the cutoff point c , where probabilities of belonging to functional and dysfunctional populations are equal, can be solved for with the following formula.

$$c = \frac{s_0 x_1 + s_1 x_0}{s_0 + s_1} = \frac{.31(1.45) + .58(.31)}{.31 + .58} = .71$$

Clients with posttest GPI scores less than .71 are

statistically more likely to be in the functional than in the dysfunctional population. Scores greater than .71 are likely to be drawn from the dysfunctional distribution.

The statistical reliability of change was determined by a reliable change index (RC) proposed by Jacobson et al. (1984). RC is equivalent to the difference score divided by the standard error of measurement:

$$RC = (x_2 - x_1) / S_E$$

where x_2 = the patient's posttest GPI score, x_1 = that patient's pretest GPI score, and S_E = the standard error of measurement. S_E is the standard deviation of scores for repeated tests which would be expected given that no actual change had occurred. Based on the data from Table 1,

$$S_E = s_1 [1 - r_{xx}]^{1/2} = .58 [1 - .84]^{1/2} = .232$$

If RC is greater than ± 1.96 , the probability that real change has not occurred is less than 5%.

Applying the above criteria for clinically significant and statistically reliable outcome, patients for the proposed study were classified into three outcome groups. High outcome patients had achieved a statistically reliable change ($RC > 1.96$) and a posttreatment level of adjustment statistically more likely to place them in the functional than in the dysfunctional population ($GPI < .71$). Medium outcome patients had achieved a statistically reliable

change, but at posttest were still functioning at a level which made them statistically more likely to be in the dysfunctional population ($GPI > .71$). Low outcome patients had failed to achieve statistically reliable improvement during therapy. There were 8 high outcome patients, 11 medium outcome patients, and 13 low outcome patients. With the exception of one patient in the low outcome group with statistically reliable deterioration, all patients had pretreatment Gross Pathology Index scores statistically more likely to be drawn from the dysfunctional population.

For the correlational analyses, the three outcome classifications were assigned ordinal values corresponding to their degree of improvement. Low outcome was assigned the value 1, medium outcome the value 2, and high outcome the value 3.

Therapeutic alliance. Clinical observer ratings of psychotherapy audiotapes on the TARS were used to quantify patient and therapist behavior congruent with descriptions in the psychodynamic literature of positive and negative contributions to the therapeutic alliance. Patient positive contributions, patient negative contributions, therapist positive contributions, and therapist negative contributions were considered as separate dimensions of the therapeutic alliance.

Instruments

SCL-90-R. The SCL-90-R is a self-report inventory designed to reflect the current psychological symptom status of psychiatric and medical patients. The 90 items of the inventory are rated on a 5-point scale from "not at all" to "extremely," indicating the degree to which they have distressed the respondent. For the proposed study, participants were instructed to rate the problems and complaints with regard to the distress they had experienced in the past couple of weeks, including the day of administration. The items of the SCL-90-R contribute to nine primary symptom dimensions: somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism. Seven items of the inventory are not included in the symptom dimensions but do contribute to the three global indices of distress. The Global Severity Index (GSI), the best single measure of current level of psychological disturbance from the SCL-90-R, combines data on the number of symptoms endorsed and the intensity of distress experienced. The individual's style of response is reflected in the Positive Symptom Distress Index (PSDI), a measure of perceived intensity of distress corrected for the number of symptoms. The total number of symptoms which a respondent acknowledges experiencing is reflected in the Positive Symptom Total (PSI).

SCL-90-R Reliability. Adequate internal consistency and test-retest reliability has been reported for the nine primary symptom dimensions of the SCL-90-R. With a population of symptomatic volunteers, Derogatis, Rickels, and Rock (1976) found that coefficient alpha ranged from .77 for the Psychoticism Scale to high of .90 for Depression. Measures of test-retest reliability for a heterogeneous group of psychiatric outpatients over a one week period ranged from .78 to .90, an appropriate level of reliability for syndromes of psychopathological symptoms, which conceptually lie between the constancy of personality traits and the instability of mood (Derogatis, 1977). Some evidence is available for the reliability, or generalizability, of the primary symptom dimensions across demographic variables. Tests of factorial invariance of the SCL-90-R have shown high levels of agreement across sex in the structural definitions of eight of the nine symptoms dimensions. A moderate level of agreement between males and females was found on the composition of the dimension of Paranoid Ideation (Derogatis & Cleary, 1977). Factorial invariance has been demonstrated across social class and psychiatric diagnosis for Depression, Somatization, Hostility, Phobic Anxiety, and Obsessive-compulsive, the dimensions which were carried over from the forerunner of the SCL-90-R (Derogatis, Lipman, Covi, & Rickels, 1971, 1972).

SCL-90-R Validity. The validity of an instrument rests on whether the instrument succeeds in measuring what it intends to measure. One type of validity, criterion-related validity, is determined by the degree of correspondence between an instrument and some conceptually important criterion external to the instrument itself, whether the criterion is applied prior to, concurrently with, or after the administration of the instrument. A study with 119 symptomatic volunteers demonstrated a high degree of concurrent validity for the SCL-90 (Derogatis, Rickels & Rock, 1976). In a correlational analysis of the relationship between the SCL-90 and the clinical, content, and cluster scales of the MMPI, the authors found that each dimension of the SCL-90 was most highly correlated with an MMPI scale reflecting a similar construct, except Obsessive-compulsive, for which there was no like MMPI scale. An investigation of the concurrent validity of the SCL-90 with the Middlesex Hospital Questionnaire produced correlations ranging from .36 to .74 between symptom dimensions tapping similar constructs, with a correlation of .92 between the global symptom scores of the two instruments (Boleloucky & Horvath, 1974).

A number of investigations have demonstrated the sensitivity of symptom patterns on the SCL-90 in discriminating various clinical groups. Studying a population of participants in a methadone maintenance

program, Weissman, Slobetz, Prusoff, Mezritz, and Howard (1976) found the symptom profile of the SCL-90 to discriminate clinically depressed from nondepressed patients. Patterns of response on the "90" were reported to discriminate between drug and placebo groups in research on the relationship between hostility and marijuana (Salzman, Van der Kolk, & Shader, 1976). Abelhoff and Derogatis (1977) have shown breast cancer patients to have a unique response pattern on the "90" which distinguishes them from women with other types of cancer. In another investigation with cancer patients (Craig & Abelhoff, 1974), the SCL-90 was found to be a useful screening instrument for psychological distress among oncology patients. One quarter of the oncology patients in the sample produced SCL-90 profiles identical to the profiles of psychiatric emergency patients.

The criterion-related studies cited above contribute support for the construct validity of the SCL-90-R, indicating a substantial correlation between the measurement as it is operationalized and the construct which it is hypothesized to measure. Another aspect to the assessment of construct validity is the investigation of the extent to which the theoretical internal structure of an instrument can be validated by empirically-based analyses (Derogatis, 1977). Factor analysis of the SCL-90-R data of 1,002 psychiatric outpatients, using both

procrustes and varimax procedures, revealed an excellent correspondence between theoretical and empirical structure of the symptom dimensions of the SCL-90-R (Derogatis & Cleary, 1977).

Therapeutic Alliance Rating Scale. The TARS is a 42-item instrument designed to assess positive and negative contributions of patient and therapist to the affective and attitudinal (cognitive-motivational) aspects of the therapeutic relationship. Though based in part on items drawn from the Penn Helping Alliance methods (Luborsky, 1976; Luborsky et al., 1983) the Vanderbilt Therapeutic Alliance Scale (Hartley, 1978), and the Vanderbilt Psychotherapy Process Scale (Gomez-Schwartz, 1978), the TARS was intended to exclude items pertaining to action, technique, or specific response. The TARS to be used in the proposed research (Marziali, 1984) is very similar in format and content to the original Therapeutic Alliance Scale developed by Marziali et al. (1981) and researched further by Marmar and associates (Foreman & Marmar, 1985; Horowitz et al. 1984), though the instrument has been partially reorganized and some items reformulated. There are three parallel forms of the instrument, designed to be used by therapists, patients, and trained clinical observers of segments of psychotherapy sessions. Only the clinical judge version of the scale will be employed in this study.

The TARS has four subscales: the Patient Positive Contribution Scale and the Therapist Positive Contribution Scale, each with 11 items, and the Patient Negative Contribution Scale and the Therapist Negative Contribution Scale each with 10 items. Each item is rated on a 6-point "intensity of presence" scale, from 0, not present, to 5, intensely present. For this study, in order to make negative and positive scale scores comparable, a mean intensity of presence score was calculated for each of the four TARS subscales by summing the item ratings for the scale, then dividing by the number of items in the scale. Like the intensity of presence scale for each item, the mean intensity score could range from 0, not present, to 5, intensely present. The mean intensity scores for each subscale will be used in the data analysis.

TARS Reliability. For TARS ratings by clinical observers of 42 psychotherapy cases at six points in treatment, internal consistency of the four subscales was evaluated using Cronbach's alpha. For therapist positive items, $\alpha = .86$; for therapist negative items, $\alpha = .87$; for patient positive items, $\alpha = .93$; for patient negative items, $\alpha = .88$. A one-way analysis of variance in which between-judges variance was included in the error term was used to determine inter-rater reliability. The intraclass correlation coefficients for ratings of therapist positive and

negative items subscales ranged from .61 to .77, and for ratings of patient positive and negative item subscales .60 to .83 (Marmar, Marziali, Horowitz, & Weiss, 1985; Marziali, 1984).

TARS validity. The available data suggests that the TARS as a whole, and the Patient Positive Contribution scale in particular, has reasonably good criterion-oriented and construct validity. Ratings by clinical judges of the patient's contributions to the alliance are strongly correlated with the patient contributions as perceived by members of the dyad. Judge's ratings of patient positive contributions correlated .56 ($p < .001$) with patient ratings and .59 ($p < .001$) with therapist ratings. Judge ratings of patient negative contributions correlated .44 ($p < .01$) with patient ratings and .50 ($p < .001$) with therapist ratings. Correlations of therapist positive contributions as rated by judges with ratings by members of the therapeutic dyad were weaker but still significant ($r = .37$, $p < .01$ and $r = .32$, $p < .05$). There was little consensus between patient, therapist, and clinical judge as to the therapist's negative contribution to the alliance (average $r = .06$) (Marziali, 1984).

Patient's pre-therapy ratings of social adjustment were significantly correlated with clinical observer ratings of patient negative contributions to the alliance (r ranged from .34 to .51). Convergent findings by

Luborsky (1983) and Moras and Strupp (1982) of significant associations between patient social adjustment and patient contributions to the alliance contribute support for the concurrent validity of the TARS, Penn Helping Alliance method, and the Patient Involvement Scale of the VPPS. The association of a history of positive interpersonal relationships with the ability to contribute to the therapeutic relationship is certainly in keeping with the theoretical importance of the patient's capacity for object relations for the development of an alliance.

Mean Patient Positive Contribution, Patient Negative Contribution, and Therapist Positive Contribution scores as rated by patients, therapists and clinical observers have been shown to predict a variety of outcome measures. The three subscales have been correlated with patient and therapist evaluations of outcome, with the exception of the observer-rated therapist positive contributions and therapist evaluation of outcome. Positive contributions to the alliance by therapist and patient as rated by the members of the dyad have been demonstrated to predict symptom level at outcome, though observer ratings have not. Observer ratings of patient contributions were predictive of clinical evaluation of dynamic outcome. As early in treatment as sessions one and three, patient and therapist positive contributions to the therapeutic alliance have been demonstrated to correlate with outcome.

Some question about the construct validity of the Therapist Negative contribution scale is raised by the finding of a positive correlation between judges' ratings on the subscale in sessions one and three and symptomatic and dynamic improvement. An alternate explanation is that the finding is an artifact of the large number of correlations in the study (Marmar et al., 1985; Marziali, 1984).

Correlational analyses to determine the independence of subscales of the TARS provided some support for the theoretical assumption that negative and positive contributions to the alliance reflect separate dimensions rather than opposite ends of one continuum, with the exception of ratings by clinical judges of patient positive and negative contributions ($\underline{r} = -.78, p < .001$). Correlations between patient positive contribution ratings and patient negative contribution ratings by patients and therapists were significantly lower ($\underline{r} = -.45$ and $-.60$). Therapist positive and negative contributions were most clearly seen as separate dimensions from all three rating perspectives ($\underline{r} = -.06$ to $-.38$) (Marziali, 1984).

A principal components analysis with varimax rotations was carried out to examine the factor structure of the TARS. It should be noted that the consideration given the results of this analysis must be tempered by recognition that there was an inadequate number of subjects (42) in proportion to the scale items (42) to justify this

approach. The analysis was repeated for each of six sessions across therapy using all the scale items. Supporting the theoretical construction of the scales, factor analysis revealed that the negative items were not inverse equivalents of the positive items. Regardless of whether the therapeutic alliance was rated by patients, therapists or clinical observers, two factors consistently emerged. Factor I consisted of six patient and eight therapist positive items, including indicators of the patient feeling helped, hopeful, and willing to examine her/his behavior and the therapist conveying hopefulness, support, and involvement in mutual work with the patient. Factor II, consisting of six patient and five therapist negative items, included indicators of patient anger, avoidance, and resistance, and therapist criticism, impatience, and insensitivity to patient wishes.

RESULTS

Design and Overview of Statistical Analyses

A 2 (Patient Prognosis) x 3 (Phase of Treatment, a repeated measure) x 3 (Outcome) factorial design was employed in the study. Data for each TARS subscale was analyzed independently, based on the theoretical rationale for the construction of the measure and on findings reported by past researchers. Marziali (1984) reported fairly low intercorrelations between the Therapist Positive Contribution scale and the Therapist Negative Contribution scale ($r = -.06$ to $-.38$) when rated by patient, therapist and external judges, indicating that the positive and negative items tap separate dimensions of the alliance. Intercorrelations between the Patient Positive Contribution scale and the Patient Negative Contribution scale were higher ($r = -.45$ to $-.78$), suggesting that the two patient subscales might be collapsed into a single scale. Use of the two patient subscales, however, is justified by the results of principal component analyses that produced separate patient positive and patient negative factors, as well as separate therapist positive and therapist negative factors (Marmar et al., in press). Independent analyses of patient positive and patient negative contributions will

also facilitate comparisons with past research, in which results have most frequently been presented separately for the two dimensions.

Analysis of variance was the predominate statistical approach used to analyze the data. Because the univariate approach to the analysis of the repeated measure design is somewhat more powerful than the multivariate approach, especially with small sample sizes, a univariate analysis was employed when the necessary assumptions were met. The univariate analysis for repeated measures requires that correlations of the dependent variable at each combination of the within subject factors be equal, and that the variances of the dependent variable be equal for all factor combinations. Bartlett's test of sphericity and the $F_{\max}$ test were use to test these assumptions. Inclusion of a between subjects factor in the analysis requires that the variance-covariance matrices for the transformed variable for a particular effect be equal for all levels of between subject factors. Box's M test was used to test this assumption (Hull & Nie, 1981).

If any of these assumptions appeared to be violated, a multivariate test of significance, Wilks Lambda, was used to test for within-subjects factor effects. The multivariate approach makes no assumptions about the characteristics of the variance-covariance matrix.

Wilks lambda is based on functions of the eigenvalues

of the matrix $\underline{S}_h \underline{S}_e^{-1}$, where $\underline{S}_h$ is the matrix of the sum of squares and cross products for the hypothesis and $\underline{S}_e$ is the matrix of the sum of squares and cross products for the error. An eigenvalue is a measure of the relative importance of the discriminant functions, which are linear combinations of variables expected to differentiate one group of subjects from another. Wilks lambda tests for the statistical significance of the discriminating information not already accounted for by the earlier function. The larger the lambda, the less information not accounted for. Wilks lambda can be transformed into an approximate F statistic, with the degrees of freedom depending upon the degrees of freedom for the hypothesis, the degrees of freedom for error, and the minimum number of dependent variables (Hull & Nie, 1981; Klecka, 1970).

Results related to the hypotheses will be presented first, followed by a presentation of other findings. Results significant at the .05 level will be reported. For the analyses of variance, tests of simple effects will be reported where appropriate.

Classification of Subjects

Subjects were classified according to prognosis for forming and maintaining a therapeutic alliance based on the Prognosis score, calculated by subtracting the mean intensity rating on the Patient Negative Contribution scale from the mean intensity rating on the Patient Positive

Contribution scale for the first session of treatment. There was a possible range of Prognosis scores from -5 to 5, with low scores indicating a poorer potential for establishing an alliance and high scores indicating a greater potential. Patient scores ranged from -.1 to 2.5, with a mean of 1.3, a standard deviation of .7, and a median of 1.4. Because of a roughly bi-modal distribution, with prognosis scores clustering around 1.0 to 1.1 and around 1.4 to 1.5, a mean split was used as the cut-off for placement in the high or low prognosis group. It is not possible to compare this distribution of scores to past findings, since the results of previous research with the TARS and the closely related CTAS have been presented only in terms of correlations.

Classification of subjects according to prognosis and outcome resulted in six groups. There were 9 subjects in the low prognosis-low outcome group; 3 subjects in the low prognosis-medium outcome group; 2 subjects in the low prognosis-high outcome group; 4 subjects in the high prognosis-low outcome group; 8 subjects in the high prognosis-medium outcome group; and 6 subjects in the high prognosis-high outcome group.

Reliability

All study segments were rated by both judges, with the exception of two segments on which ratings were missing for one judge. The subscale score, rather than the subscale

item, was considered to be the unit of reliability, since data analysis was based on the subscale scores. Interrater reliability was calculated on all study segments with complete data. Because the same two judges rated all segments, and the mean of the judges' ratings was used for the data analysis, judges were considered to be fixed effects. Results of the data analyses were not affected by judge mean differences. A two-way mixed effects analysis of variance was used to obtain the intraclass correlation coefficient, since judges were considered as fixed effects. The form of intraclass correlation coefficient obtained from this analysis is equivalent to Cronbach's (1951) alpha. The reliability index is interpreted in this case as a measure of rater consistency rather than rater agreement (Shrout & Fleiss, 1979).

The average intraclass correlations coefficient for the mean rating of each subscale was .59 for the Patient Positive Contribution scale, .70 for the Patient Negative Contribution scale, .46 for the Therapist Positive Contribution scale, and .57 for the Therapist Negative Contribution scale. The average reliabilities for the Therapist Positive and Therapist Negative Contribution scales were attenuated by the low intraclass correlation coefficients for the middle phase of treatment. A Judge x Patient interaction seems a probable explanation for the low coefficients, but in the absence of repeated ratings of

each patient by each judge at each phase of treatment, the interaction components and the error components cannot be estimated separately from the analysis of variance. Limited variance in the rating matrix contributed to the difficulty in achieving adequate interrater reliability for the Therapist Positive Contribution scale.

Hypotheses Testing Analyses

Distribution of patient contribution scores. In Tables 2 and 3, the mean intensity scores for the Patient Positive Contribution scale and Patient Negative Contribution Scale within outcome and prognosis group are presented for each phase of treatment. The reader will be asked to refer to these tables as the results of the analyses of the patient subscales are discussed.

Hypothesis one. Hypothesis 1 stated that the positive and negative contributions to the therapeutic alliance made by the patient in the first session of treatment would be predictive of the patient's ability to form and maintain a therapeutic alliance throughout treatment. The data supported this hypothesis. A two (Prognosis) x 3 (Phase, a repeated measure) x 3 (Outcome) analysis of variance produced significant main effects of prognosis for the Patient Positive Contributions scale, $F(1, 26) = 7.26$, $p < .02$, and for the Patient Negative Contribution scale, $F(1, 26) = 6.24$, $p < .02$. Patients who showed a low prognosis for developing a therapeutic alliance in the

Table 2Mean Intensity Scores for the Patient Positive Contribution Scale

		Phase of Treatment		
Outcome	<u>n</u>	Early	Middle	Late
Low prognosis patients				
Low	9			
<u>M</u>		2.53	2.62	2.62
<u>SD</u>		0.59	0.31	0.50
Medium	3			
<u>M</u>		2.21	2.26	2.76
<u>SD</u>		0.49	0.45	0.17
High	2			
<u>M</u>		2.43	2.61	2.54
<u>SD</u>		0.61	0.42	0.06
High prognosis patients				
Low	4			
<u>M</u>		2.95	3.01	2.65
<u>SD</u>		0.41	0.39	0.60
Medium	8			
<u>M</u>		2.74	2.87	2.82
<u>SD</u>		0.38	0.41	0.45
High	6			
<u>M</u>		2.74	2.82	3.07
<u>SD</u>		0.36	0.29	0.28

Table 3Mean Intensity Scores for the Patient Negative Contribution Scale

		Phase of Treatment		
Outcome	<u>n</u>	Early	Middle	Late
Low prognosis patients				
Low	9			
<u>M</u>		1.34	1.51	1.66
<u>SD</u>		0.20	0.33	0.70
Medium	3			
<u>M</u>		1.53	2.22	1.65
<u>SD</u>		0.33	0.50	0.33
High	2			
<u>M</u>		1.85	2.32	1.70
<u>SD</u>		0.92	1.31	0.35
High prognosis patients				
Low	4			
<u>M</u>		1.14	1.22	1.57
<u>SD</u>		0.17	0.36	0.56
Medium	8			
<u>M</u>		1.41	1.26	1.61
<u>SD</u>		0.53	0.27	0.71
High	6			
<u>M</u>		1.24	1.32	1.15
<u>SD</u>		0.26	0.28	0.28

first session of therapy made more negative contributions and fewer positive contributions to the alliance throughout treatment than patients with initially high prognoses for developing an alliance. Results of the 2 x 3 x 3 analysis of variance for the Patient Positive and Negative Contribution scales are presented in Tables 4 and 5. A multivariate approach was used to test the within subjects effects for the Patient Negative Contribution scale data because the assumptions of compound symmetry were violated. The univariate approach was used for the Patient Positive Contribution Scale data.

Hypothesis Two. Hypothesis 2 stated that patients with an initially poor prognosis for developing an alliance would have greater variability in outcome than patients with a high prognosis. An F -test failed to provide evidence that the variance in outcome classification was significantly different for high ($s^2 = .575$) and low prognosis ($s^2 = .577$) patients, $F(13, 17) = 1.00$, n.s. F -tests comparing the variance in outcome as measured by posttreatment Gross Pathology Index scores on the SCL-90-R also failed to reach significance, $F(13, 17) = .95$, n.s. (High prognosis, $s^2 = .104$; low prognosis, $s^2 = .099$). There was a trend toward greater variance in the pre- to posttreatment difference scores on the Gross Pathology Index for low prognosis patients ($s^2 = .523$) than for high prognosis patients ($s^2 = .241$), $F(13, 17) = 2.17$, $p < .10$.

Table 4

Summary of 2 (Prognosis) x 3 (Outcome) x 3 (Phase) Manova

Results for the Patient Positive Contribution Scale

Source of variance	<u>df</u>	Mean square	<u>F</u>	<u>p</u>
Prognosis	1	2.176	7.26	.02*
Outcome	2	.110	<1.00	.70
Prognosis by outcome	2	.028	<1.00	.91
Error between	26	.300		
Phase	2	.142	<1.00	.32
Prognosis by phase	2	.035	<1.00	.75
Outcome by phase	4	.150	1.22	.32
Prognosis by outcome by phase	4	.102	<1.00	.51
Error within	52	.123		

* $p < .05$

Table 5

Summary of 2 (Prognosis) x 3 (Outcome) x 3 (Phase) Manova
Results for the Patient Negative Contribution Scale

<u>Between subjects factor effects</u>					
Source of Variance	<u>df</u>	Mean square	<u>F</u>	<u>p</u>	
Prognosis	1	2.074	6.24	.02*	
Outcome	2	.437	1.31	.29	
Prognosis by outcome	2	.404	1.22	.31	
Error between	26	.332			
<u>Multivariate test for within-subjects factor effects</u>					
Effect	Wilks Lambda	Hypothesis <u>df</u>	Error <u>df</u>	<u>F</u>	<u>p</u>
Phase	.844	2	25	2.32	.12
Prognosis by phase	.838	2	25	2.42	.11
Outcome by phase	.840	4	50	1.14	.35
Prognosis by outcome by phase	.870	4	50	<1.00	.47

* $p < .05$

While patients with an initially poor prognosis for developing an alliance showed some tendency to be more varied than high prognosis patients in the amount of change they achieved during treatment, they were no more varied in their final outcome.

Hypothesis Three. Hypothesis 3 stated that, among patients who achieve a significant change in psychotherapy, positive patient contributions will be greater in late than in early sessions of treatment. Hypothesis 3 was partially supported. Though the main effect of phase of treatment for the pooled patient positive data of high and medium outcome patients failed to reach significance, $F(2, 36) = 2.71$, $p < .10$, a contrast between the early and late phases of treatment produced a significant difference, $F(1, 18) = 5.33$, $p < .05$. Patients who achieved a statistically reliable change showed a significant increase from early in treatment ($M = 2.9$) to late in treatment ($M = 3.2$) in the intensity of presence of their positive contributions to the therapeutic alliance.

Hypothesis Four. Hypothesis 4 stated that there would be a significant difference in the course of patient positive and negative contributions to the therapeutic alliance between patients who achieve clinically significant change and patients who achieve no reliable change. No support for Hypothesis 4 was found. The 2 (Low versus High Outcome) x 3 (Phase) analysis of variance

produced no significant Outcome x Phase interaction, $F(2, 38) = 1.08$, n.s., and no main effect of outcome, $F(1, 19) < 1.0$, n.s., for the Patient Positive Contribution Scale. No Outcome x Phase interaction, $F(2, 18) = 1.49$, n.s., and no main effect of outcome, $F(1, 19) = 1.11$, n.s., was obtained for the Patient Negative Contribution scale. Patients who achieved a statistically reliable, clinically significant change during psychotherapy and patients who achieved no reliable change did not differ in their positive and negative contributions to the therapeutic alliance during the course of treatment. The Outcome x Phase analysis of variance results for the Patient Positive and Negative Contribution scales are presented in full in Tables A-1 and A-2 of the Appendix.

Distribution of therapist contribution scores. In Tables 6 and 7, the mean intensity scores for the Therapist Patient Positive Contribution scale and Therapist Negative Contribution Scale within outcome and prognosis group are presented for each phase of treatment. The reader will be asked to refer to these tables as the results of the analyses of the therapist subscales data are discussed.

Hypothesis Five. Hypothesis 5 stated that within patients with a poor capacity for establishing a therapeutic alliance, therapist positive contributions to the alliance would be positively related to successful outcome; therapist negative contributions would be

Table 6

Mean Intensity Scores for the Therapist Positive
Contribution Scale

Outcome	n	Phase of Treatment		
		Early	Middle	Late
Low prognosis patients				
Low	9			
<u>M</u>		2.37	2.46	2.28
<u>SD</u>		0.38	0.28	0.45
Medium	3			
<u>M</u>		2.23	2.64	2.41
<u>SD</u>		0.58	0.12	0.57
High	2			
<u>M</u>		2.27	2.66	2.61
<u>SD</u>		0.13	0.16	0.03
High prognosis patients				
Low	4			
<u>M</u>		2.55	2.72	2.37
<u>SD</u>		0.16	0.09	0.38
Medium	8			
<u>M</u>		2.39	2.58	2.51
<u>SD</u>		0.38	0.34	0.39
High	6			
<u>M</u>		2.42	2.56	2.52
<u>SD</u>		0.57	0.48	0.29

Table 7

Mean Intensity Scores for the Therapist Negative
Contribution Scale

		Phase of Treatment		
Outcome	<u>n</u>	Early	Middle	Late
Low prognosis patients				
Low	9			
<u>M</u>		1.21	1.22	1.77
<u>SD</u>		0.28	0.24	0.73
Medium	3			
<u>M</u>		1.12	1.53	1.63
<u>SD</u>		0.32	0.63	0.79
High	2			
<u>M</u>		2.02	1.62	1.85
<u>SD</u>		0.32	0.18	1.41
High prognosis patients				
Low	4			
<u>M</u>		0.91	0.95	1.55
<u>SD</u>		0.11	0.17	0.49
Medium	8			
<u>M</u>		1.45	1.20	1.12
<u>SD</u>		0.72	0.39	0.27
High	6			
<u>M</u>		1.22	1.31	1.02
<u>SD</u>		0.35	0.32	0.07

negatively related to successful outcome. No support for Hypothesis 5 was obtained. Because of the small number of low prognosis patients ($n = 14$), the data for medium ($n = 3$) and high outcome patients ($n = 2$) was pooled to form a reliable change group for this analysis. Because the assumption of compound symmetry was violated, the multivariate approach was used in analyzing the within subject effects for the Therapist Negative Contribution scale. The 2 (No Reliable Change versus Reliable Change) x 3 (Phase) analyses of variance produced no significant main effect of reliable change and no interactive effect of reliable change with phase of treatment for therapist positive (Reliable change: $F(1, 12) < 1.0$, n.s.; Reliable Change x Phase: $F(2, 24) = 1.3$, n.s.) or therapist negative contributions (Reliable change: $F(1, 12) = 1.16$, n.s.; Reliable change x Phase: $F(2, 11) < 1.0$, n.s.). The analysis of variance results are presented in full in Tables A-3 and A-4 of the Appendix.

Hypothesis Six. Hypothesis 6 stated that therapist alliance-related behavior would be more strongly associated with patient alliance-related behavior for low prognosis patients than for high prognosis patients. No support was obtained for Hypothesis 6. For each prognosis group, Pearson product-moment correlation coefficients were calculated for each pair of subscale scores for each phase of treatment. Fisher's Z-transformations of the

product-moment correlations coefficients were then used to test the hypothesis that the relationship between patient and therapist subscales at each point in time was stronger for low prognosis patients than for high prognosis patients. None of the correlations between patient and therapist subscales were significantly higher for low prognosis patients than for high prognosis patients.

Prognosis Measure

Prognosis for the alliance. Data for each TARS subscale was subjected to a 2 (Prognosis) x 3 (Outcome) x 3 (Phase of Treatment) analysis of variance. Results of the analyses for the Patient Positive Contribution scale are presented in Table 4, the Patient Negative Contribution scale in Table 5, the Therapist Positive Contribution scale in Table 8, and the Therapist Negative Contribution scale in Table 9. The validity of the Prognosis score as a predictor of the patient's ability to establish and maintain a therapeutic alliance throughout treatment was supported by the finding of a main effect of prognosis on patient positive and patient negative contributions to the therapeutic alliance across treatment, as discussed with regard to Hypothesis 1. Patients whose contributions to the alliance in the first session of treatment placed them in the high prognosis group made significantly more positive contributions and fewer negative contributions to the alliance than low prognosis patients throughout

Table 8

Summary of 2 (Prognosis) x 3 (Outcome) x 3 (Phase) Manova
Results for the Therapist Positive Contribution Scale

Source of Variance	<u>df</u>	Mean square	<u>F</u>	<u>p</u>
Prognosis	1	.246	1.05	.32
Outcome	2	.010	<1.00	.96
Prognosis by outcome	2	.053	<1.00	.80
Error between	26	.235		
Phase	2	.297	2.95	.06
Prognosis by phase	2	.005	<1.00	.95
Outcome by phase	4	.079	<1.00	.54
Prognosis by outcome by phase	4	.026	<1.00	.91
Error within	52	.101		

Table 9

Summary of 2 (Prognosis) x 3 (Outcome) x 3 (Phase) Manova
Results for the Therapist Negative Contribution Scale

<u>Between subjects factor effects</u>					
Source of variance	<u>df</u>	Mean square	<u>F</u>	<u>p</u>	
Prognosis	1	1.588	6.06	.02*	
Outcome	2	.208	<1.00	.46	
Prognosis by outcome	2	.330	1.26	.30	
Error between	26	.262			
<u>Multivariate tests for within-subjects factor effects</u>					
Effect	Wilks Lambda	Hypothesis <u>df</u>	Error <u>df</u>	<u>F</u>	<u>p</u>
Phase	.925	2	25	1.02	.38
Prognosis by phase	.837	2	25	2.43	.11
Outcome by phase	.822	4	50	1.29	.29
Prognosis by outcome by phase	.757	4	50	1.87	.13

* $p < .05$

treatment. A main effect of prognosis was also obtained for the Therapist Negative Contribution scale ($F(1, 26) = 6.06, p < .02$), with therapists showing a greater tendency to make negative contributions to the alliance when working with patients with an initially low potential for establishing a relationship ($M = 1.5$) than when working with patients with a high potential ($M = 1.2$) for establishing a relationship. Therapist positive contributions to the alliance appeared to be uninfluenced by the patient's potential for establishing a working relationship.

Prognosis and symptom level. When the dual criteria for clinically significant improvement in reported symptom level were applied with low prognosis patients, approximately 14% were found to meet both criteria, achieving a statistically reliable change in symptom level which placed them in the normal range of functioning; 21% achieved statistically reliable change but remained outside the normal range; 64% failed to achieve a statistically reliable change. Among high prognosis patients, approximately 33% achieved clinically significant improvement; 44% achieved a statistically reliable change but failed to reach a normal level of functioning; 22% achieved no reliable change. A chi-square test of the relatedness between the prognosis classification and outcome failed to reach the criteria for statistical

significance , $\chi^2 = 5.77$, $p < .06$.

When the relationship between the Prognosis score and outcome was assessed by a conventional one-tailed t -test between means for the two prognosis groups on pre- to posttreatment difference scores on the SCL-90-R Gross Pathology Index, a significant difference was obtained, $t(30) = 2.03$, $p < .05$. The decrease in the level of reported symptoms from pre- to posttreatment was significantly greater for high prognosis ($M = 0.77$) patients than for low prognosis ($M = 0.34$) patients. However, correlational tests revealed no significant relationship between the continuous variable of Prognosis score and outcome classification ($r = .34$, $p < .23$) or change in symptomatology as indicated by the SCL-90-R ($r = .11$, $p < .28$). No associations were found between the Patient Positive Contribution scale scores or the Patient Negative Contribution Scale scores for session 1 and session 3 and outcome classification or the SCL-90-R change score. The 2 (Prognosis) x 3 (Phase of Treatment) x 3 (Outcome) analyses of variance, presented in Tables 4, 5, 8, and 9, showed no interactive effect of prognosis and outcome for any TARS subscale.

Patient potential for establishing a therapeutic alliance as demonstrated in the first session of therapy was unrelated to pretreatment symptom level, $r = .07$, $p < .35$.

Outcome

Patient improvement. Before treatment, this sample had levels of symptoms comparable with other outpatient samples in psychotherapy research. The mean gross pathology score on the SCL-90-R for this sample at intake ($\underline{M}$ = 1.45, $\underline{SD}$ = .58) was somewhat higher than the mean gross pathology score ($\underline{M}$ = 1.25, $\underline{SD}$ = .39) reported by Derogatis et al. (1976) for a sample of symptomatic outpatients in a validation study of the SCL-90-R.

Because a disparity in variances precluded the use of a parametric test between pre- and posttreatment gross pathology index means, the Wilcoxon matched-pairs ranked signs test was used to determine whether psychotherapy was effective in reducing the level of symptoms for the sample as a whole. The Wilcoxon test revealed a significant improvement in symptom level as measured by the SCL-90-R gross pathology index, $\underline{z}$ = -4.10, $\underline{p}$ < .001. After treatment, there was significantly less variance in the level of symptoms than before treatment, $\underline{F}(31, 31)$ = 3.29, $\underline{p}$ < .001.

Of the 32 patients in the study, 59% achieved statistically reliable change, as defined earlier. Only 25% of the sample met both criteria for a clinically significant improvement, achieving reliable change and a posttreatment level of symptomatology statistically more likely to place them in the functional than the

dysfunctional range. Two patients were assigned to the low outcome group despite posttreatment SCL-90-R scores which fell in the functional distribution, because they failed to achieve a statistically reliable change.

The level of symptoms initially reported by the patient was highly predictive of outcome. The greater the pretreatment level of symptoms endorsed, the more decrease in symptoms the patient was likely to achieve by termination, $r = .86$, $p < .001$, and the higher the patient's outcome classification was likely to be, $r = .42$, $p < .01$.

Interaction with other factors. 2 (Prognosis) x 3 (Outcome) x 3 (Phase) analyses of variance on data for all subjects, presented in Tables 4, 5, 8, and 9, produced no main or interactive effect of outcome for any subscale. To assess differences in the course of contributions to the alliance between extreme outcome groups, subjects who achieved no statistically reliable change and subjects who achieved clinically significant change, data for each TARS subscale was subjected to a 2 (Low versus High Outcome) x 3 (Phase of Treatment) analysis of variance. The only significant effect obtained was an Outcome x Phase interaction for the Therapist Negative Contribution scale, $F(2, 18) = 3.91$, $p < .05$. A graph of the interaction is presented in Figure 1.

Though therapists appeared to make substantially more

negative contributions to the alliance with high outcome patients in the early and middle phases of therapy, but more negative contributions with low outcome patients in the late phase, tests for a simple effect of outcome within each phase revealed a statistically significant difference between high ($\bar{M} = 1.39$) and low ($\bar{M} = 1.13$) outcome patients only in the middle of treatment, $F(1, 19) = 4.25, p < .053$. Tests for the simple effect of phase within outcome revealed a significant effect for phase within low outcome patients, $F(2, 18) = 5.74, p < .02$. A contrast of the early ($\bar{M} = 1.13$) and middle ($\bar{M} = 1.11$) phases with the late ($\bar{M} = 1.70$) phase of treatment within low outcome patients

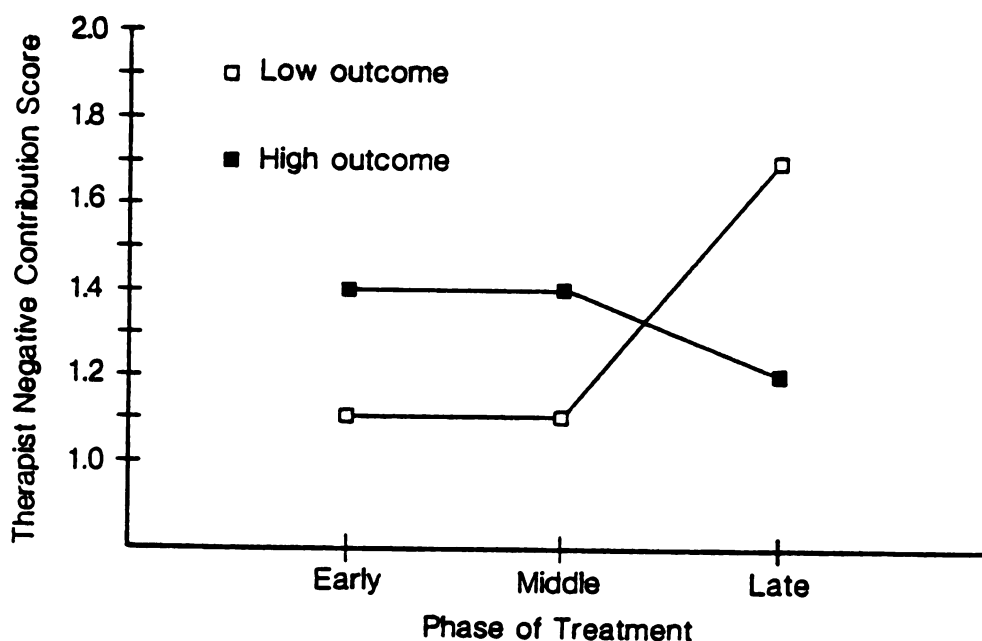


Figure 1. Outcome x Phase interaction for Therapist Negative Contribution score.

revealed a highly significant increase in therapist negative contributions at the end of treatment, $F(1, 19) = 10.60, p < .005$.

Phase of Treatment

As can be seen from Tables 4, 5, 8, and 9, the main effect of phase of treatment failed to reach statistical significance for any TARS subscale, though the effect for the Therapist Positive Contribution scale just missed the .05 level of significance, $F(2, 52) = 2.95, p < .06$, and there was weak trend for the Patient Negative Contribution scale, $F(2, 25) = 2.32, p < .12$. A contrast between the mean Therapist Positive Contribution score for the middle phase of treatment ($M = 2.57$) and the mean (2.41) of Therapist Positive Contribution scores for the early ($M = 2.39$) and late ($M = 2.43$) phases of treatment revealed that therapists made significantly more positive contributions in the middle phase of treatment, $F(1, 31) = 5.25, p < .05$. The results of this contrast must be interpreted with caution since the main effect of phase of treatment fell short of the established significance level, and because the reliability coefficient for the Therapist Positive Contribution scale was low. Patient negative contributions increased from the early ($M = 1.36$) to the middle ($M = 1.49$) to the late ($M = 1.54$) phase of treatment.

Intercorrelations Between Alliance Subscales

Intercorrelations between the TARS subscales for each phase of treatment are presented in Table 10. A two-tailed test of statistical significance was applied to each correlation coefficient since no explicit hypotheses about relationships between subscales for the total sample had been made. The average correlation coefficient across the phases of treatment was calculated for each subscale. The hypothesis of no relationship between subscales was rejected for the relationships between the Patient Positive and Patient Negative Contribution scales, average $\bar{r} = -.77$, $p < .001$, the Patient and Therapist Positive Contribution scales, average $\bar{r} = .56$, $p < .001$, the Patient Positive and Therapist Negative Contribution scales, average $\bar{r} = -.44$, $p < .01$, and the Patient and Therapist Negative Contribution scales, average $\bar{r} = .60$, $p < .001$. The null hypothesis was accepted for the relationships between the Patient Negative and Therapist Positive Contribution scales, average $\bar{r} = -.18$, n.s., and the Therapist Positive and Negative Contribution scales, average $\bar{r} = .27$, n.s.

To facilitate comparisons with reported results from past research, four-session total mean scores were generated for each TARS subscale, and correlations between mean scores were obtained. As with the average correlations, the null hypothesis of no relationship had to

Table 10

Intercorrelations Between TARS Subscales for Each Phase of Treatment (n = 32)

Subscale	2	3	4
Session 1			
1. Patient positive	-.51**	.71***	-.44*
2. Patient negative	—	-.23	.59**
3. Therapist positive		—	-.15
4. Therapist negative			—
Early phase			
1. Patient positive	-.47**	.61***	-.32
2. Patient negative	—	-.25	.60***
3. Therapist positive		—	-.31
4. Therapist negative			—
Middle phase			
1. Patient positive	-.76***	.37*	-.50**
2. Patient negative	—	-.03	.58**
3. Therapist positive		—	-.27
4. Therapist negative			—
Late phase			
1. Patient positive	-.77***	.49**	-.51**
2. Patient negative	—	-.20	.63***
3. Therapist positive		—	-.35*
4. Therapist negative			—

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

be rejected for the relationships between the Patient Positive and Negative Contribution scales, $r = -.76$, $p < .001$, the Patient and Therapist Positive Contribution scales, $r = .56$, $p < .01$, the Patient Positive and Therapist Negative Contribution scales, $r = -.55$, $p < .01$, and the Patient and Therapist Negative Contribution scales, $r = .66$, $p < .001$. The null hypothesis was accepted for the relationships between the Patient Negative and Therapist Positive Contribution scales, $r = -.21$, n.s., and the Therapist Positive and Negative Contribution scales, $r = -.27$, n.s.

Summary of Results

Hypothesis testing analyses. The analysis of the data provided support for Hypotheses 1 and 3. Patients who showed low prognosis for developing an alliance, as indicated by their positive and negative contributions to the therapeutic alliance in the first session of treatment, made more negative contributions and fewer positive contributions to the alliance throughout treatment than patients with a low prognosis. Among patients who achieved a significant change in psychotherapy, patient positive contributions to the alliance increased significantly from early to late in treatment.

No support was obtained for the other hypotheses. Patients who began treatment with a poor prognosis for developing an alliance were not more variable in outcome

than patients with a high prognosis. There was no evidence that patients who achieve a statistically reliable, clinically significant improvement during psychotherapy differed from patients who achieve no reliable change in the positive and negative contributions they made to the alliance during the course of treatment. Therapist positive and negative contributions to the alliance appeared to be unrelated to the outcome of therapy with patients having an initially poor potential for forming an alliance. Therapist alliance-related behavior was not more strongly associated with patient-alliance related behavior for patients with a low prognosis for the alliance than for patients with a high prognosis.

Other findings. A relationship between patient prognosis for the alliance and therapist alliance-related behavior was found, with therapists having a greater tendency to make negative contributions to the alliance throughout treatment with low prognosis patients than with high prognosis patients. Prognosis for forming an alliance showed no relationship to the pretreatment level of symptomatology or to therapy outcome. The patient's pretreatment level of symptomatology was predictive of outcome.

One unexpected, interesting finding was the significant Outcome x Phase interaction for the Therapist Negative Contribution scale, when the data from only high

and low outcome patients was analyzed. In the early and middle phase of therapy, therapists made more negative contributions to the alliance with high than with low outcome patients. In the final phase of therapy, however, therapists negative contributions to the alliance with low outcome patients increased significantly, while contributions with high outcome patients decreased.

Intercorrelations between TARS subscales revealed a reciprocity between patient and therapist alliance-related behaviors, with the exception of patient negative and therapist positive contributions. There was a strong negative correlation between patient positive and patient negative contributions to the therapeutic alliance, but no significant relationship between therapist positive and negative contributions.

DISCUSSION

Despite theoretical assertions that a therapeutic alliance is a prerequisite to successful outcome in psychotherapy, the research has not consistently validated the importance of patient and therapist contributions to the alliance in predicting the outcome of treatment. The convergence of the data appears to indicate that patient positive contributions are associated with successful outcome, but empirical support for the influence of patient negative contributions and therapist contributions to the alliance is equivocal.

It was hypothesized that the failure of research to consistently validate theory might be a consequence of an inadequately complex approach to research on the therapeutic alliance. There is preliminary evidence that alliance-related behaviors may have different implications for outcome depending upon patient predispositional variables and upon the phase of treatment in which they occur. The influence of therapist behavior on outcome seems particularly likely to be obscured in the conventional statistical approach of pooling the data for all patients without regard for their predispositional variables, since patient factors appear to account for a

significantly higher proportion of variance in outcome than therapist factors.

The primary purpose of this study was to explore the course of patient and therapist contributions to the therapeutic alliance as they relate to the patient's initial potential for establishing a relationship and to treatment outcome. The influence of therapist alliance-related behaviors on patient contributions to the alliance and on outcome with patients demonstrating initially poor relationship potentials was of particular interest. A second objective of the study was to bridge the gap between clinical practice and research by employing clinically significant criteria for successful psychotherapy outcome, rather than relying on comparisons of group means. The third purpose of the study was to assess the applicability of the TARS to research with a heterogeneous sample of patients and therapists engaged in treatment of varying theoretical orientations and durations.

To accomplish these objectives, psychotherapy patients were classified as having high or low potentials for establishing a relationship based on their contributions to the therapeutic alliance in the first session of treatment, as rated on the TARS by external judges from audiotaped segments of the session. For each treatment case, judges also rated patient and therapist contributions to the alliance from segments of an early, middle, and late

session in treatment. Patients were assigned to one of three outcome groups, based on criteria of having achieved a statistically reliable change in symptom level and having achieved by termination a level of adjustment statistically likely to place them within the normal range.

Prognosis for the Alliance

Hypothesis one. As predicted, patients rated as having an initially low prognosis for forming an alliance made more negative contributions and fewer positive contributions to the alliance throughout the course of treatment than patients rated as having an initially high prognosis. The results are consistent with past findings that pretreatment assessments of the patient's capacity for interpersonal relationships are predictive of contributions to the alliance during treatment (Marziali, 1984; Moras & Strupp, 1982; Ryan, 1973) and that patient contributions to the alliance early in therapy are predictive of contributions late in therapy (Morgan et al., 1982). The data suggest that patients possess a core capacity for relatedness, reflected in pretreatment measures and in interpersonal behavior from the first session of psychotherapy, that has significant implications for the ability to form and maintain a therapeutic alliance throughout treatment. The results are consistent with psychoanalytic theory, in which the capacity of the patient for reasonably stable object relationships is specified as

a prerequisite to forming a therapeutic alliance.

A comparisons of this study with past studies in regard to first session indicators of patient prognosis for forming an alliance is not possible because the distribution of TARS/CTAS scores has not been reported by past researchers. It would be interesting to know where patients in this study fell in their first session positive and negative contributions to the alliance relative to norms for a typical outpatient psychotherapy population.

Other relevant results. Patient prognosis for developing an alliance was also predictive of the therapist's negative contributions to the alliance throughout treatment, but unrelated to therapist positive contributions. The results suggest that a patient with an initially poor capacity to relate is likely to elicit negative responses from the therapist, perhaps negative countertransference, throughout treatment. The absence of results for positive therapist contributions suggest the possibility that positive contributions are part of a "good therapist" stance that, for the majority of therapists, is not easily discomposed by a difficult client. This hypothesis is further supported by the failure to find a significant correlation between patient negative contributions and therapist positive contributions, while therapist negative contributions are highly correlated with patient negative contributions. If therapist positive

contributions are relatively stable regardless of patient behavior, it seems likely that therapist negative contributions will have more impact on the process of therapy.

The failure to find an association between the pretreatment Gross Pathology Index score of the SCL-90-R and the Prognosis score or the Patient Negative Contribution scale score from session one is incongruent with Marziali's (1984) report that pretreatment symptom level and depressive mood were associated with patient negative contributions in the first session of treatment. However, past researchers employing the TARS/CTAS have found no significant associations between mean Patient Positive or Patient Negative Contribution scale scores and pretreatment symptom level (Marmar et al., in press; Marziali, 1984). Though the incongruence of Marziali's results for the Patient Negative Contribution scale is a problematic issue, the bulk of the data suggests that ratings of patient behavior on the TARS subscales are not measures of symptomatic distress. Pretreatment symptom level and initial capacity for object relatedness may both have implications for psychotherapy process and outcome, but they reflect differential aspects of psychological functioning and should be treated as distinct patient predispositional variables.

Prognosis for the Alliance and Outcome

Hypothesis two. The hypothesis that "poor" psychotherapy candidates, candidates with a low potential for establishing a therapeutic alliance, would have more varied outcome than "good" psychotherapy candidates was not supported. There was a trend only for greater variance for low prognosis patients in the SCL-90-R change score. The results for Hypothesis 2 appear to invalidate the underlying assumption that "good" psychotherapy candidates typically benefit from treatment, barring any major failing on the part of the therapist, while "poor" psychotherapy candidates have a range of outcomes reflecting the influence of therapist skill, since "poor" candidates lack the resources to achieve gains with minimal assistance, but are able to respond to effective interventions by the therapist.

Capacity for relatedness as a predictor of outcome. A premise more basic to Hypothesis 2, the premise that patients with high and low prognoses for forming an alliance are "good" and "bad" psychotherapy candidates in the conventional sense of potential for outcome, appears to be questionable. Use of the dual criteria for clinically significant outcome revealed that only 14% of patients with a low prognosis for the alliance, compared to 33% of the high prognosis patients, achieved clinically significant improvement. While only 22% of the high prognosis patients

failed to achieve a statistically reliable change in symptoms, 64% of the low prognosis patients failed to achieve a reliable symptom change. These figures suggest that low prognosis patients had a much lower probability of a successful outcome, but the chi-square test of a relationship between prognosis grouping and outcome classification fell short of statistical significance. A t-test indicated that high prognosis patients achieved significantly more symptom change than low prognosis patients, but the more accurate correlational analyses indicated no significant relationship between prognosis score and change in symptom level, or between prognosis score and outcome classification.

The failure to find a solid relationship between patient contributions to the alliance in session one and outcome is consistent with the results of O'Malley, Suh, and Strupp (1983) and Sachs (1983), but inconsistent with the findings of Marziali (1984), who reported a significant relationship between session one patient positive contributions and some outcome variables. She did not indicate whether symptom level was among these variables. Neither Marziali (1981) nor Horowitz et al. (1984) found a relationship between pretreatment measures of interpersonal functioning and symptom change.

The results of the present study in combination with past research suggest that though patients' initial

capacity for relatedness are predictive of their contributions to the alliance throughout treatment, they are not necessarily predictive of treatment outcome as reflected in symptom change. Contrary to theoretical assumptions, the data provide no evidence that a good initial capacity for relatedness distinguishes a "good" psychotherapy candidate who will likely benefit from treatment, at least with regard to symptom change. The negative results raise the possibility that initial capacity for relatedness has implications for outcome only in interaction with other variables not examined in this study. The failure to find greater variance in outcome among patients with a low prognosis for a therapeutic alliance does not controvert the assumption that therapist behavior will more strongly influence the final level of adjustment for patients with an initially low prognosis for outcome than for patients with an initially high prognosis for outcome.

Patient Contributions to the Alliance

Hypothesis three. As predicted, the positive contributions of patients who achieved a statistically reliable change increased significantly from early to late treatment. When data for the low outcome patients was included in the analysis, this difference between phases was not obtained. The results are consistent with the work of Luborsky et al. (1983), who reported an increase in

positive contributions for successful patients only, and with the pattern reported for all patients by Marziali (1984). Given that Marziali's study was conducted with initially fairly high-functioning patients and very skilled therapists, it is possible that all patients in her study achieved a relatively successful outcome. The failure of Gomez-Schwartz et al. (1983) to find a similar trend for patient positive contributions may be attributed to her approach of pooling data for all outcome groups. The Hartley and Strupp (1983) findings of a decrease in patient contributions from the beginning to the end of treatment, as measured by the VTAS, are more difficult to reconcile with other results. Perhaps they can be attributed to the overinclusiveness of the patient subscale of the VTAS, which encompasses anxiety, defensiveness, motivation, and positive and negative contributions in a single scale. Neither in the present study nor in the Marziali (1984) study was a difference found between early and late sessions in patient negative contributions.

The results of this study add further support for the assumption that, among patients who benefit from therapy, there is an increase from the beginning to the end of treatment in the strength of the bond to the therapist and in active involvement in the collaborative work of therapy. A similar increase does not seem to occur in less successful treatments.

Hypothesis four. Based on the assumption that a more complex approach to research might clarify some of the contradictions in the empirical literature regarding the relationship between the therapeutic alliance and psychotherapy outcome, patient contributions to the alliance were studied at different phases of treatment. Contrary to the prediction of Hypothesis 4, there was no evidence that patients who achieved a clinically significant improvement in symptom level differed from unsuccessful patients in their positive and negative contributions to the alliance in early, middle, or late therapy. No support was found for a simple relationship between outcome classification and positive or negative contributions collapsed over phase of treatment.

The failure to find a simple or complex relationship between patient contributions to the therapeutic alliance and psychotherapy outcome challenges the theoretical assumption that the formation of an alliance is a prerequisite to successful psychotherapy. It also contradicts the convergence of empirical evidence that patient positive contributions to the alliance are predictive of outcome. A more careful examination of the empirical literature reveals, however, that though clinical judges' ratings of patient positive contributions to the alliance have been reported to predict a number of outcome measures, they have not often been found to predict

patient-reported symptom level.

In her 1984 research employing the TARS, Marziali reported that patient and therapist ratings of patient positive contributions to the alliance correlated with a variety of outcome measures, including symptom change, but external judge ratings correlated only with patient and therapist posttherapy evaluations and clinical evaluations of dynamic outcome. Horowitz et al. (1984) failed to find a significant direct relationship between judge ratings on the CTAS of patient positive contributions to the alliance and decrease in total symptoms as measured by the SCL-90-R. In earlier research, however, Marziali et al. (1981) found that judge-rated scores combining patient positive and negative contributions differentiated the five most improved from the five least improved patients, selected from a group of 25. The contradictions between the Marziali et al. (1981) results and the results of other research with the TARS/CTAS may in part be attributable to the Marziali (et al., 1981) selection procedure, which was likely to maximize the outcome effect. Outcome groups were less extreme in the present study, and patients were unselected for outcome in the Horowitz et al. (1984) and Marziali (1984) investigations. More important, however, seems to be the outcome criteria employed. Unlike the present study and other TARS/CTAS research, the Marziali et al. (1981) investigation based outcome classification on a

composite of several self-report and judge measures. No assessment was made of the relationship between patient contributions and outcome measured by symptom level alone.

Similar patterns have been found in research with other alliance-related measures. Associations have been reported between the Patient Involvement Scale of the VPPS and a variety of outcome measures, such as therapist and clinical observer rating of improvement, but not self-reported symptom change as measured by the MMPI (Gomez-Schwartz et al., 1978; O'Malley et al., 1983). Hartley and Strupp (1983) found no relationship between the VTAS patient subscale, which incorporates positive and negative behaviors, and outcome classification based on a composite measure which included MMPI change score. Luborsky and his associates (Luborsky et al., 1983; Morgan et al., 1982) did report a significant association between patient positive contributions to the therapeutic alliance and outcome. In their work, the probability of obtaining an outcome effect was maximized by the selection of extreme outcome groups from a large group of subjects, based on a composite score of patient and clinical observer ratings on a variety of scales. The accumulation of the data seems to suggest that, though patient positive contributions to the therapeutic alliance as rated by external judges are predictive of some measures of psychotherapy outcome, they are not related to change in patient-reported symptom

level.

The failure to find evidence of a relationship between patient negative contributions to the alliance and outcome is generally consistent with results of past research, since empirical support for the relationship is equivocal at best. Marziali (1984), Hartley (1978), and the Luborsky group (Luborsky et al., 1983) reported that their measures of patient negative contributions to the alliance did not predict outcome. The inconsistency between the Marziali et al. (1981) finding that patient negative contributions as measured by the TARS did predict outcome, and the negative results from this and other research, may be accounted for by Marziali's (1981) use of extreme outcome groups and by the use of different outcome measures. However, the report by Horowitz et al. (1984) of a significant inverse relationship between patient negative contributions and total symptom reduction as measured by the SCL-90-R is very difficult to reconcile with the failure in this study and the Marziali et al. (1984) study to find a significant relationship between the same variables. It is possible that the Patient Negative Contribution Scale of the TARS was given different interpretations by raters in the various studies. Or perhaps patient negative contributions to the therapeutic relationship have different implications for patients presenting with grief reactions, as in the Horowitz study,

than for patients with heterogeneous presenting problems.

The conclusion that patient positive contributions to the therapeutic alliance as rated by clinical judges do not predict improvement in self-reported symptom level, though they may predict other outcome criteria, certainly adds weight to the argument for multidimensional outcome criteria. However, it also calls into question the theoretical assumption that a therapeutic alliance is a prerequisite for successful psychotherapy, since a decrease in symptoms experienced by the patient is certainly one essential criteria for successful outcome. Confidence in conventional beliefs about the importance of the therapeutic alliance for treatment outcome is further eroded by the paucity of support for a relationship between patient negative contributions and outcome.

One possible explanation of the failure of empirical studies to corroborate theoretical assumptions about the importance of patient contributions to the alliance for improvement in symptom level is that the implications of alliance-related behavior for outcome can be understood only in interaction with other variables. An attempt was made in this study to determine whether patients with similar initial capacities for relatedness, as indicated by first session contributions to the alliance, but with dissimilar outcomes, were differentiated by their pattern of contributions to the alliance during treatment. The

data provided no support for the hypothesis that patient contributions to the alliance have different implications for outcome depending upon the patient's predisposition for establishing an alliance. Horowitz et al. (1984) reported that patient motivation, however, interacted with both patient positive and patient negative contributions to the alliance to account for a significant proportion of the variance in symptom improvement. Patient positive contributions were positively related to outcome at low levels of motivation, but shifted direction and became negative as motivation increased. Patient negative contributions were negatively related to outcome at lower values of motivation, but shifted from negative to positive as motivation increased. Though the patient's initial capacity for relatedness does not appear to interact with contributions to the alliance to predict outcome, other patient predispositional variables do.

It seems that if, as psychoanalytic theory postulates, the formation of a therapeutic alliance is a prerequisite to successful psychotherapy outcome, the relationship between patient contributions to the alliance and outcome is neither simple nor direct. Perhaps patient contributions to the alliance predict a significant proportion of the variance in symptom improvement only in interaction with other variables.

Therapist Contributions to the Alliance

Hypothesis five. Following the assumption of Suh and O'Malley (1982) that the influence of therapist variables on psychotherapy outcome for "poor" psychotherapy candidates tends to be obscured when the data for all patients is pooled, patients in this study were designated as having a high or low prognosis for forming a therapeutic alliance, and the therapist contribution data was analyzed separately for low prognosis patients. Contrary to the predictions of Hypothesis 5, no evidence was found for a relationship between therapist positive or negative contributions to the alliance and psychotherapy outcome in the treatment of low prognosis patients. Though the failure to find a relationship between therapist alliance-related behaviors and outcome is consistent with most past research, it had been anticipated that the technique of differentiating high and low prognosis patients would elucidate relationships which had been obscured in the past. Two factors seem to have been operating to undermine the effectiveness of this approach.

The first factor was the assumption that patients with low prognoses for establishing an alliance were necessarily "poor" psychotherapy candidates, and patients with high prognoses were "good" candidates. As discussed earlier with regard to Hypothesis 2, the data from this investigation, contradicting theory, clinical experience,

and some past research, provided no evidence that a good potential for forming a therapeutic alliance distinguishes a "good" psychotherapy candidate who will benefit from treatment, at least as reflected by symptom improvement. Thus the absence of support for Hypothesis 5 does not rule out the possibility that therapist alliance-related behavior will influence outcome for patients with an initially poor prognosis for benefiting from treatment.

The second factor is the size of the sample. The number of low prognosis patients was so small that only an extremely strong relationship would have registered statistical significance. The "failed predictions" patients who were of greatest interest, low prognosis patients who achieved clinically significant improvement, numbered only two, preventing meaningful generalizations about therapist contributions with these patients and minimizing the possibility of statistically significant results. The small number of patients seems to have precluded a valid test of the hypothesis that therapist alliance-related behavior influences outcome among patients who begin treatment with a poor capacity for relatedness.

Hypothesis six. No evidence was found for a greater influence of therapist alliance-related behavior on patient alliance-related behavior among low prognosis patients than among high prognosis patients. For both groups, patient and therapist alliance-related behavior tended to be highly

correlated at each phase of therapy, but no more so for low prognosis patients than for high prognosis patients. The absence of support for Hypothesis 6 further discredits the assumption that patients with an initially low prognosis for forming an alliance will be more susceptible to the influence of therapist behavior than high prognosis patients.

Outcome x Phase interaction. Unpredicted but very interesting was the Outcome x Phase of Treatment interaction for the Therapist Negative Contributions scale score when only high and low outcome patients were included in the analysis. In the early and middle phases of treatment, therapists were more likely to make negative contributions to the alliance when working with patients who eventually achieved clinically significant improvement than when working with patients who failed to achieve reliable change. However, by the end of treatment, the pattern had reversed. Therapists were making more negative contributions with low outcome patients than with high outcome patients.

The pattern of the Outcome x Phase effect is counter to theoretical assumptions that negative therapist contributions to the alliance inhibit the patient's progress in therapy, but it is not inconsistent with results reported by some other investigators. Marziali (1984) found that therapist negative contributions to the

alliance in the first and third session of treatment were positively associated with symptomatic and dynamic improvement. Dietzel and Abeles (1975) reported that successful therapists responded to their clients with a significantly lower level of complementarity during the middle phase of therapy than unsuccessful therapists. Crowder (1972) noted more hostile-competitive behavior among successful therapists than among unsuccessful therapists in the early phase of therapy. Hartley and Strupp (1983) found Positive Climate, which is primarily a therapist contribution factor, to be significantly lower for high outcome dyads than for low outcome dyads in the median session of treatment. The accumulated data suggests that perhaps some therapist negative behavior in response to the client early in therapy is necessary to challenge the client's characteristic patterns of interaction and to facilitate change. The apparently negative behaviors may actually be necessary to engaging the patient in the cognitive-motivational aspects of the therapeutic alliance. By the end of treatment, therapists may no longer see a need to challenge patients who are making significant gains, whereas the increase in negative contributions with unsuccessful patients may reflect therapist frustration with the patient's failure to make progress.

A factor which may confound the interpretation of the

Phase x Outcome effect for the Therapist Negative Contributions scale is the strong relationship between outcome and pretreatment level of symptomatology. High outcome patients were significantly higher ($t(19) = 3.18$, $p < .005$) in pretreatment symptom level than low outcome patients. It may be that more negative therapist behavior is elicited early in treatment by the eventual high outcome patients because they are more disturbed than the low outcome patients. By the end of treatment, high outcome patients are no longer eliciting such negative therapist behavior because they have reached a "normal" level of functioning. What is interesting is that these initially low functioning patients make progress in therapy despite the theoretically alliance-inhibiting behavior of their therapists. It may be that therapist positive contributions, for which there was no Phase x Outcome interaction, were consistent enough to develop and sustain the emotional bond of the alliance with these initially difficult patients despite the negative therapist contributions. Or, as suggested earlier, what appear to be negative therapist contributions to the alliance may actually facilitate change by disrupting the patient's characteristic patterns of interaction. Though the low outcome patients initially elicit less negative therapist behavior because they are less disturbed, by the end of treatment the therapist may be quite frustrated because

these patients with a seemingly good initial potential to use therapy have accomplished little.

Since outcome for the Crowder (1972) and Dietzel and Abeles (1975) studies were based on clinician's ratings of pre- and posttherapy MMPI profiles, it is possible that there was a similar correlation between initial level of pathology and outcome classification. Hartley and Strupp (1983) also employed gain scores to obtain their outcome classification, with no mention of control for initial level. The findings by Marziali (1984), of a positive association between early negative therapist contributions and decrease in symptoms, however, cannot be accounted for by the effect of initial symptom level on outcome, because she controlled for this effect.

There was little evidence in the literature to support theoretical assumptions about the importance of therapist behavior for psychotherapy outcome, but a number of aspects of the present study were intended to maximize the probability of teasing out the influence of therapist variables. The technique of differentiating high and low prognosis patients in order to avoid masking the influence of therapist contributions on outcome with low prognosis patients failed to produce results. The approach of looking at the therapeutic alliance more complexly did prove to be fruitful. Though no simple relationship was found between therapist contributions to the alliance and

outcome, therapist negative contributions had different implications for outcome depending upon the phase of treatment in which they occurred. The use of therapists with a wider range of skill than typically found in past research may also have strengthened the effect of therapist negative contributions. Both Marziali (personal communication) and Horowitz et al. (1984) mentioned the lack of variability of ratings of therapist variables as a factor interfering with obtaining significant results. Though distributions of scores from the previous studies are not available for comparison, distributions of scores for this study suggest that lack of variability was not a problem with the therapist negative contribution score, which was equivalent to the patient negative contribution score in variance and range. A lack of variability in the therapist positive contribution score may have inhibited the likelihood of obtaining statistically significant results. Perhaps fairly consistent positive contributions are a given with most therapists, but negative contributions to the alliance are more easily made by unskilled therapist or therapists in whom countertransference reactions have been triggered.

Course of the Alliance

For the sample of patients as a whole, the effect of phase of treatment did not reach significance for any TARS subscale, though there was a strong trend for the Therapist

Positive Contribution Scale and a weak trend for the Patient Negative Contribution scale. Therapist positive contributions to the alliance were significantly higher in the middle of treatment than in the early or late phases. It may be that therapists increase their positive contributions from the beginning through the middle of therapy as they strive to build a solid alliance. By the end of treatment the alliance should be well established, and perhaps fewer positive contributions on the part of the therapist are required to maintain it. Interpretations of the phase of treatment effect for the Therapist Positive Contribution scale should be made with caution, given the low interrater reliability for the scale. Reliability was particularly problematic for the middle phase of treatment.

Contrary to what might be expected, patient negative contributions increase over the course of therapy. It may be that the negative patient behaviors scored on the TARS overlap with indicators of negative transference, which could be more likely to occur as the patient becomes increasingly involved in the therapeutic process, though negative transference would be expected to be resolved by the end of treatment. Because the Psychological Clinic where the treatments were conducted operates on an academic calendar, it is possible that termination for many of these patients was dictated by the clinic calendar rather than the achievement of the treatment goals, leaving negative

transference not only unresolved, but heightened by the circumstances of termination. The trend for patient negative contributions is compatible with the Hartley and Strupp (1983) finding of a decrease over time on the Patient subscale of the VTAS, which incorporates negative and positive patient behaviors but is scored in the positive direction. Phase of treatment effects have not been reported for patient negative contributions to the alliance by other researchers.

Outcome

Comparisons of pre- and posttreatment mean symptom levels indicated that psychotherapy was beneficial for the sample as a whole. As would be expected if treatment was effective, the variance in symptom scores decreased significantly from pre- to posttreatment, as patients moved toward a more functional level of adjustment. Applying the dual criteria for clinically significant outcome study permits a more meaningful statement about the effectiveness of therapy for individual patients in this study. A statistically reliable improvement in symptom level was achieved by 59% of the patients, though only 25% of the total sample also reached a level of adjustment likely to place them in the functional range.

The dual criteria for psychotherapy outcome employed in this study was intended to avert some of the methodological difficulties of common approaches to outcome

measurement in psychotherapy research: global, subjective ratings which defy meaningful generalization of findings; statistical unreliability of gain scores; equating patients with similar final adjustments but very different degrees of change; and statistically significant but clinically irrelevant differences between group means on outcome measures. The patients identified as having a high outcome in this study had achieved statistically reliable change in symptom level during treatment and had reached a final level of adjustment more likely to place them in the functional than in the dysfunctional range. Thus high outcome patients had clearly achieved clinically significant improvement.

Correlation with pretreatment symptom level. The situations for low outcome patients, however, is more ambiguous, due to the correlation of pretreatment symptom level with outcome. While past researchers have reported that pretreatment symptom level accounted for only 5 to 10% of the variance in outcome, pretreatment symptom level in the present study accounted for 74% of the variance in the change in symptom level and 18% of the variance in outcome classification. The higher the initial level of reported symptomatology, the more change the patient was likely to achieve during therapy and the greater the probability of being classified as having a clinically significant improvement.

The correlation between pretreatment level and outcome can be attributed in part to the greater influence of regression to the mean on change scores of patients with initially high levels of symptoms, and to a ceiling effect. Patients who began treatment with a relatively low level of symptoms, though within the dysfunctional range, could make considerable gains by termination but be classified as having a low outcome because the SCL-90-R is not sufficiently sensitive to register changes at the healthy end of the continuum of psychological functioning. In the present study, only two patients reached a level of adjustment in the functional range but were classified as having low outcome because their changes scores were not statistically reliable. Reanalyses of the data excluding these two patients did not produce significantly different results from the original analyses. If a substantial proportion of the low outcome patients in a study had reached a functional level of adjustment, the pattern of relationship between psychotherapy process and outcome could be quite distorted. Even in the present research, the interpretation of results must be made with an awareness that high outcome patients are also initially low functioning patients. It seems possible that the strong correlation between pretreatment symptom level and outcome, which has been controlled in past research with the TARS, may have obscured any relationship between the therapeutic

alliance scales and outcome.

Selecting only patients with comparably high pretreatment symptom levels could avert the problem of outcome correlating with pretreatment symptom level. With initially higher functioning patients, an outcome measure more sensitive than the SCL-90-R to changes at the healthy end of the psychological continuum might be employed.

Need for multidimensional criteria. Though the approach to the measurement of outcome taken in this study represented an improvement in methodology over many past studies, it was limited by the use of a single dimension of outcome. Patient positive contributions to the alliance as rated by clinical judges have rarely been found to relate to symptom change, but associations with other types of outcome criteria have been found. Perhaps the probability of finding a relationship between the therapeutic alliance and outcome could have been maximized by employing an outcome measure which, like the process measure, reflected the perspective of a mental health professional. The ideal would be to assess outcome from the perspectives of society, the mental health professional, and the patient, with the dual criteria of statistically reliable change and final adjustment within the functional range applied to each perspective. An absence of reliable measures with the required norms available could make such ideal criteria difficult to

implement.

Validation of the TARS

Reliability. One purpose of the study was to assess the applicability of the TARS for use with a heterogeneous sample of clients and therapists engaged in a wider range of treatment than in previous studies. Establishing adequate interrater reliability with our sample of cases, which was much more divergent than the samples of short-term psychodynamic psychotherapies with neurotic patients used in previous TARS/CTAS research, was difficult. Clinical judges in this study received significantly more hours of training than the 12 hours typically provided by past researchers, yet intraclass correlation coefficients for the subscales were considerably lower than the coefficients presented by Marziali and her associates (Marziali, 1984; Marziali et al., 1981). This might suggest that, like the Vanderbilt Negative Indicators Scale (Suh, O'Malley, & Strupp, 1982), the TARS may be most applicable to therapy conducted from the psychoanalytic framework in which it was conceived. However, reliability coefficients from two other investigations, also done on short-term psychodynamic psychotherapy with neurotic patients, are more comparable to the reliability coefficients from this study than the Marziali studies.

Horowitz et al. (1984) reported intraclass correlation coefficients for Patient and Therapist Negative

Contributions of .62 and .51 respectively, and indicated that the unspecified reliability levels for positive subscales were sufficiently lower to be deemed unacceptable. The higher range of reliabilities reported by Horowitz et al. were fairly comparable to coefficients for this study, which ranged from .46 to .70. Though a second reliability analysis of the same data produced intraclass correlation coefficients ranging from .65 to .76, the use of a two-way analysis of variance which Shrout and Fleiss (1978) indicate is inappropriate to the Horowitz et al. method of data collection seems to invalidate the second set of reliability coefficients reported. A third reliability study with a small sample produced coefficients ranging from .50 to .72 (Marmar et al., in press).

The important factor distinguishing the Marziali (1984; Marziali et al., 1981) research from other investigations with significantly lower reliability coefficients seems to be the level of clinical experience of the judges. Marziali employed experienced clinicians, while advanced trainees in psychology, psychiatry, and social work served as judges in this study and the other two studies with lower reliabilities. Some discrepancy in the experience levels and theoretical orientations of the clinical judges in this study may have also contributed to the difficulty in establishing reliability. One judge was

less clinically experienced and less psychoanalytically oriented than the other judge.

Average reliability coefficients for the Therapist Positive and Negative Contribution scales for this study were diminished considerably by poor reliabilities for the middle session of therapy, when there appeared to be a patient by judge interaction influencing the ratings. Limited variance in the rating matrix contributed to the difficulty in establishing reliability for the Therapist Positive Contribution Scale.

With the exception of the coefficient for the Patient Negative Contributions scale, the interrater reliabilities obtained in this study are lower than desirable according to text-book standards. However, the intraclass correlations coefficients are comparable to the coefficients reported by previous researchers using the TARS/CTAS with advanced clinical trainees as judges. The power of the test for reliability in the present study is strengthened by the sample size of 126 segments, each rated by two raters.

It appears that the sophistication of clinical judgments required in applying the TARS/CTAS makes it very difficult to establish adequate interrater reliability on the instrument, though the use of seasoned clinicians as judges maximizes reliability. It may also be that our classical standards for research methodology are

unrealistic within the context of psychotherapy research. In an article on methodological strategies in psychiatric clinical research, Kraemer (1981) contended that test-retest reliabilities of 80% and above should be considered near perfect, 60%-80% as satisfactory, and 40%-60% as acceptable but possibly improvable.

The comparability of intraclass correlation coefficients for this study with coefficients for other student-judged studies suggests that the TARS can be applied as reliably to psychotherapy of varying durations conducted from diverse theoretical perspectives with a wide range of patient as it can be applied to time-limited psychodynamic psychotherapy with patients showing neurotic level responses to stress. Given the discrepancies between our reliabilities and the reliabilities obtained in the Marziali (1984; Marziali et al., 1981) studies, additional research with seasoned clinicians applying the TARS to a diverse sample of psychotherapy cases would be recommended to confirm the equivalent reliability.

Intercorrelations of subscales. The patterns of association between subscales found were identical to the patterns reported in the Marziali (1984) research. Therapist and Patient Positive Contribution scales and Therapist and Patient Negative Contribution scales had a strong positive correlation, while Patient Positive and Negative Contribution scales showed a strong inverse

relationship. In contrast, Therapist Positive and Negative scales were not significantly correlated, suggesting that they represented two separate dimensions. This similarity of relationships between subscales in the Marziali (1984) study and the present study strengthens the case for the applicability of the TARS to divergent dyadic therapeutic relationships. The discrepancies between the patterns of subscale intercorrelations reported in the 1981 Marziali et al. study and the patterns found in the present research and the 1984 Marziali research may be due to the selection of extreme outcome groups in the earlier Marziali study.

Validity. Discriminant validity for the TARS with the varied sample of psychotherapy cases in this study was supported by the failure to find a significant correlation between prognosis score and pretreatment symptom level, indicating that, consistent with conceptualization, the patient contribution scales are not merely measures of symptomatic distress.

The question of whether the TARS has predictive validity for a psychotherapy with a heterogeneous sample of patients and therapists remains unresolved. The dearth of support obtained in this study for a significant relationship between the TARS subscales, with the exception of the Therapist Negative Contribution scale, and outcome suggests the possibility that the scale may be most applicable to psychotherapy conducted within the

theoretical framework from which the TARS was conceived. Though the originators intended the TARS to assess the collaborative aspect of any dyadic therapeutic relationship, the measure has been applied only to time-limited psychoanalytically-oriented psychotherapy in the research published thus far. At the Michigan State University Psychological Clinic, interpersonal, ego psychoanalytic, Rogerian, and cognitive-behavioral approaches to treatment are represented. Bordin (1979) contended that different kinds of therapeutic alliances are required in psychotherapy conducted from different theoretical perspectives. It may be that the TARS taps aspects of the alliance, particularly cognitive-motivational aspects, that are prerequisites for successful psychoanalytically oriented therapy, but less relevant for other modes of treatment. The use of symptom level as the only dimension of outcome in this research, when past investigators have generally failed to find a relationship between the TARS subscales and symptom improvement, makes it difficult to compare the predictive validity of the TARS for this heterogeneous sample of cases to the predictive validity for the time-limited, psychoanalytically-oriented treatments of neurotic patients to which it has previously been applied. While the predictive validity of the TARS with a heterogeneous population needs to be assessed with multidimensional outcome criteria, it seems that validity

of clinical judge ratings on any of the TARS scales for predicting symptomatic improvement of psychotherapy patients remains in question.

SUMMARY AND CONCLUSION

The objectives of this research were threefold. The first objective was to address the complexity of the therapeutic alliance by studying the interaction of the patient's initial prognosis for establishing a therapeutic relationship, the course of contributions to the therapeutic alliance, and outcome. The more complex approach was intended to elucidate some of the relationships between contributions to the alliance, particularly therapist contributions to the alliance, and outcome, which had been obscured in past research. The second purpose of the study was to assess the validity of the TARS for use with a more heterogeneous sample of therapist and patients engaged in a wider range of treatments than in previous studies. The third objective of the research was to examine the relationship between the therapeutic alliance and outcome when outcome, rather than determined solely by comparisons between groups means or by correlations, was defined in clinically significant terms.

Therapeutic Alliance

The results of this study indicate that, from the first session of therapy, patients demonstrate a potential

for establishing a therapeutic relationship that is predictive of their capacity to contribute to a therapeutic alliance throughout treatment. This finding is consistent with the theoretical assumption that patient possession, prior to beginning psychotherapy, of certain aspects of relatively mature ego development is a prerequisite to the formation of a therapeutic alliance. The patient's predisposition for establishing a relationship appears to further influence the strength of the therapeutic alliance because patients with a low potential for an alliance tend to elicit more negative contributions to the alliance from therapists throughout treatment. As predicted, there was an increase from early to late therapy in the positive contributions to the alliance made by patients who achieved a reliable improvement in symptoms.

A theoretical assumption not strongly supported in this study is that a good patient potential for forming a trusting bond and working in a collaborative way with the therapist also implies a good potential for benefiting from psychotherapy. Though patients with a low prognosis for forming an alliance were more likely to fail to achieve a statistically reliable change in symptoms and less likely to make a clinically significant improvement than high prognosis patients, patient prognosis for the alliance did not account for a significant proportion of the variance in symptom improvement.

The failure to find a strong relationship between patient prognosis for forming an alliance and outcome is part of a more general failure to validate the theoretical importance of patient contributions to the alliance for psychotherapy outcome. Despite efforts to take a more complex approach to the therapeutic alliance, considering the influence of a patient predispositional variable and the vicissitudes of the alliance in different phases of therapy, no simple or complex relationship between patient alliance-related behavior and outcome was found. Though these negative results are inconsistent with the convergence of data indicating that patient positive contributions to the alliance predict some measures of outcome, they contribute to the growing evidence that clinical judge ratings of patient contributions to the therapeutic alliance are unrelated to improvement in patient-reported symptom level.

The approach of differentiating patients with high and low relationship potentials, hoping to uncover an influence of therapist alliance-related behavior on low potential patients which had been obscured in past research when all patients were pooled, did not prove fruitful. There was no evidence that patient alliance-related behavior correlated more strongly with therapist alliance-related behavior among low prognosis patients than among high prognosis patients. While no support was obtained for the hypothesis

that therapist contributions to the alliance influence outcome for patients with a low initial capacity to relate, it seems that the small number of low prognosis subjects did not allow a valid test of the hypothesis. As discussed earlier, the assumption that a poor potential for establishing a therapeutic alliance was indicative of a poor potential for benefiting from psychotherapy was not well founded. Differentiating patients as having a high or low prognosis based on a different predispositional variable, a variable actually related to outcome, might have revealed some influence of therapist contributions to the alliance on outcome for patients lacking the initial resources to benefit from treatment with minimal assistance from the therapist.

The more complex approach of studying the therapeutic alliance at different phases of treatment did reveal a relationship between therapist negative contributions to the alliance and outcome which collapsing the alliance ratings over the phases of treatment would have masked. The significant results contradict theoretical assumptions, however, suggesting that therapist negative contributions in the early and middle phases of treatment, rather than inhibiting progress, facilitate change by challenging the patient's characteristic patterns of relating. The approach of employing a sample of therapists with a wide range of skills was effective in revealing a relationship

between therapist behavior and outcome, unlike past studies in which therapist skill levels have typically been homogeneous and scores on therapist alliance subscales have varied little. The results of the study also suggest that therapist positive contributions to the alliance are fairly stable, but therapist negative contributions are vulnerable to the influence of difficult clients.

This research produced no support for the theoretical assumption that "the observable ability of the patient and therapist to work together in a realistic, collaborative relationship based on mutual respect, liking, and commitment to the work of treatment" (Foreman & Marmar, 1985, p. 922) is predictive of psychotherapy outcome. One possible explanation is that therapeutic alliance as conceptualized and operationalized in the TARS has implications for outcome only for psychotherapy conducted from an ego psychoanalytic framework, not for a heterogeneous sample of cases. A review of past research, however, indicates that clinical judge ratings of patient contributions to the alliance on the TARS/CTAS in psychoanalytically-oriented treatments have been found to predict a number of outcome measures, but rarely has symptom improvement been one of those measures. The pattern is similar for other instruments designed to measure the therapeutic alliance. Evidence for an influence of therapist contributions to the alliance, like

most therapist variables, on symptom improvement or any outcome measure is rare.

Though evidence from past research that patient contributions to the alliance predict outcome measures other than symptom improvement adds weight to the argument for multidimensional outcome criteria, the failure in this and other studies to find a significant relationship between clinical judge ratings of patient or therapist contributions to the alliance and symptom improvement presents a serious challenge to theoretical assumptions about the role of the therapeutic alliance. Symptom level is only one aspect of psychotherapy outcome, but it is certainly a critical aspect.

The accumulation of data thus far indicates that if, as theorized, indicators of patient and therapist involvement in a therapeutic alliance are predictive of outcome in psychotherapy, the relationship is neither simple nor direct. Judge ratings of contributions to the alliance may predict some outcome measures but not others. Patient or therapist ratings of the alliance may predict outcome measures that judge ratings fail to predict. The implications of therapist negative contributions to the alliance for outcome vary depending upon when in treatment they occur. Some patient predispositional variables interact with contributions to the alliance to predict outcome, though the patient's initial capacity for forming

a therapeutic relationship does not appear to have a significant influence.

Inconsistent research results force a recognition of the possibility that a positive bond between patient and therapist, marked by a mutual commitment to the collaborative work of therapy, may not be a prerequisite to successful outcome in psychotherapy. Clinical experience, however, supports the probability that the empirical inconsistencies reflect a relationship between the therapeutic alliance and psychotherapy outcome that is highly complex. It seems likely that implications of patient and therapist contributions to the alliance may be understood only in interaction with a number of other variables.

The power of this research was undermined by the sample size which, though not atypical for psychotherapy research, was relatively small. A relationship between variables would have reached statistical significance only if it was quite strong. Given the probable complexity of interactions between contributions to the therapeutic alliance and other variables in predicting outcome, large samples of psychotherapy cases may be necessary to extract patterns of relationships between variables if traditional statistical approaches are to be taken to psychotherapy research. Another alternative might be to take a more microscopic approach to a small number of cases, perhaps

doing a session-by-session analysis to elucidate the patterns of interactions between variables within each case. Though not productive in the present study, the failed predictions approach seems to offer much promise for identifying the aspects of process which distinguish successful from unsuccessful treatment cases.

Applicability of the TARS

Only a somewhat tentative conclusion that the TARS is applicable to a diverse sample of patients and therapists engaged in treatments of varying durations and theoretical orientations can be drawn. Though interrater reliability on the TARS proved difficult to achieve with this heterogeneous sample of cases, reliability coefficients were equivalent to coefficients of other studies in which the judges were also advanced clinical trainees. Patterns of correlations between subscales of the TARS were similar to patterns obtained in past research. While first session indicators of patient potential for forming a therapeutic alliance were predictive of patient contributions to the alliance throughout treatment, no predictive validity of the TARS for symptom improvement was found. This finding would raise serious questions about the applicability of the TARS with a heterogeneous sample of psychotherapy cases, except that it is congruent with most results of earlier TARS/CTAS investigations of time-limited, psychoanalytically-oriented psychotherapy with neurotic

patients, and of results with other therapeutic alliance instruments with other populations. It seems that further research with the TARS on a diverse sample of treatment cases with multidimensional outcome criteria and with more seasoned clinicians serving as judges is needed before a conclusion can be drawn about the applicability of the scale to any dyadic therapeutic relationship.

Clinically Significant Criteria for Outcome

Applying the dual outcome criteria of a statistically reliable improvement and a final adjustment within the normal range of functioning avoided a number of methodological problems of common approaches to outcome measurement, and identified a group of high outcome patients who had clearly achieved an improvement in symptom level with practical implications for their lives. Posttreatment, they reported no more psychological symptoms than a random sample of non-patients. Due to a strong correlation of outcome with pretreatment symptom level, the failure of all low outcome patients to achieve a clinically meaningful change was more equivocal. In future research, some control for pretreatment symptom level should be included. Ideally, the clinically significant criteria would be also be applied to multiple outcome measures, though results could be difficult to interpret since different measures would be likely to diverge in their classifications of patients.

Reporting the proportion of patients in each prognosis group who achieved clinically significant improvement and who achieved no reliable change provided information about the effects of treatment for individual patients lost in the statement that high prognosis patients had a statistically significantly higher mean change score than low prognosis patients. If prognosis for the alliance had shown better predictive validity for outcome, the results of this study could have been used to estimate, based on first session contributions to the alliance, the likelihood that a specific individual would achieve a clinically significant improvement in psychotherapy. Reporting the proportion of clinically improved patients seems a very useful adjunct to traditional statistical approaches.

Conclusion.

The results of the study seem to speak most strongly to the need for a multidimensional approach to both process and outcome variables in the study of the therapeutic alliance. The relationship between the therapeutic alliance and outcome seems likely to be mediated by the interplay of alliance-related behavior with a variety of variables, including patient predispositions, therapeutic technique, and the sequence of events in psychotherapy. The probability of clarifying the relationship between psychotherapy process and outcome would be increased by use

of more robust, multidimensional outcome measures, applying the dual criteria for clinically significant improvement to each dimension. If patient and therapist contributions to the therapeutic alliance do have significant implications for psychotherapy outcome, as theory and clinical experience attest, it seems that the relationship is highly complex and will only be understood with an equally complex approach to research.

APPENDIX

APPENDIX

Manova Summary Tables

Table A-1

Summary of 2 (High vs. Low Outcome) x 3 (Phase) Analysis
of Variance for Patient Positive Contribution Scale

Source of variance	<u>df</u>	Mean square	<u>F</u>	<u>p</u>
Outcome	1	.188	<1.00	.46
Error between	19	.325		
Phase	2	.053	<1.00	.67
Outcome by phase	2	.142	<1.00	.35
Error within	38	.131		

Table A-2

Summary of 2 (High vs. Low Outcome) x 3 (Phase) Analysis
of Variance for Patient Negative Contribution Scale

<u>Between subjects factors effects</u>					
Source of variance	<u>df</u>	Mean square	<u>F</u>	<u>p</u>	
Outcome	1	1.116	<1.00	.87	
Error between	19	38.303			
<u>Within subjects factors effects</u>					
Effect	Wilks Lambda	Hypothesis <u>df</u>	Error <u>df</u>	<u>F</u>	<u>p</u>
Phase	.796	2	18	2.30	.13
Outcome by phase	.858	2	18	1.49	.25

Table A-3

Summary of 2 (Reliable Change vs. No Change) x 3 (Phase)
Analysis of Variance for Therapist Positive Contribution
Scale: Low Prognosis Patients

Source of variance	<u>df</u>	Mean square	<u>F</u>	<u>p</u>
Change	1	.073	<1.00	.58
Error between	12	.227		
Phase	2	.166	1.92	.17
Change by phase	2	.112	1.30	.29
Error within	24	.086		

Table A-4

Summary of 2 (Reliable Change vs. No Change) x 3 (Phase)
Analysis of Variance for Therapist Negative Contribution
Scale: Low Prognosis Patients

<u>Between subjects factor effects</u>					
Source of variance	<u>df</u>	Mean square	<u>F</u>	<u>p</u>	
Change	1	.355	1.16	.30	
Error between	12	.306			
<u>Within subjects factor effects</u>					
Effect	Wilks Lambda	Hypothesis <u>df</u>	Error <u>df</u>	<u>F</u>	<u>p</u>
Phase	.703	2	11	2.33	.15
Change by phase	.953	2	11	<1.00	.77

LIST OF REFERENCES

LIST OF REFERENCES

- Abeles, N. (1985, October). Ego psychology in 1985. Paper presented at the Missouri Psychological Association Meeting, Columbia, MO.
- Abelhoff, M. D., & Derogatis, L. R. (1977). Psychological aspects of management of primary and metastatic breast cancer. Proceeding of the International Conference on Breast Cancer. New York: A. R. List.
- Allen, J. G., Newsom, G. E., Gabbard, G. O., & Coyne, L. (1984). Scales to assess the therapeutic alliance from a psychoanalytic perspective. Bulletin of the Menninger Clinic, 48, 383-400.
- Barrett-Lennard, G. T. (1962). Dimensions of therapist response as causal factors in therapeutic change. Psychological Monographs, 76 (43, Whole No. 562).
- Bergin, A. E., & Lambert, M. J. (1978). The evaluation of therapeutic outcomes. In A. E. Bergin & S. L. Garfield (Eds.), Handbook of psychotherapy and behavior change: An empirical analysis (2nd ed.). New York: John Wiley & Sons.
- Bordin, E. S. (1979). The generalizability of the psychoanalytic concept of the working alliance. Psychotherapy: Theory, Research, and Practice, 6, 467-481.
- Boleloucky, Z., & Horvath, M. (1974). The SCL-90 rating scale: First experience with the Czech version in healthy male scientific workers. Acta Nerva Superior, 1, 115-116.
- Craig, T. J., & Abelhoff, M. (1974). Psychiatric symptomatology among hospitalized cancer patients. American Journal of Psychiatry, 131, 1323-1327.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. Psychometrika, 16, 297-334.
- Crowder, J. E. (1972). Relationship between therapist and client interpersonal behaviors and psychotherapy outcome. Journal of Counseling Psychology, 19, 68-75.

- Derogatis, L. R. (1977). The SCL-90 scoring, administration and procedures manual I (for the revised version). Baltimore: John Hopkins University School of Medicine, Clinical Psychometrics Research Unit.
- Derogatis, L. R., & Cleary, P. A. (1977). Confirmation of the dimensional structure of the SCL-90: A study in construct validation. Journal of Clinical Psychology, 33, 981-985.
- Derogatis, L. R., Lipman, R. S., Covi, L., & Rickels, K. (1971). Neurotic symptom dimensions as perceived by psychiatrists and patients of various social classes. Archives of General Psychiatry, 24, 454-464.
- Derogatis, L. R., Lipman, R. S., Covi, L., & Rickels, K. (1972). Factorial invariance of symptom dimensions in anxious and depressive neuroses. Archives of General Psychiatry, 27, 659-665.
- Derogatis, L. R., Rickels, K., & Rock, A. F. (1976). The SCL-90 and the MMPI: A step in the validation of a new self-report scale. British Journal of Psychiatry, 128, 280-289.
- Dickes, R. (1975). Technical considerations of the therapeutic and working alliances. International Journal of Psychoanalytic Psychotherapy, 4, 1-24.
- Dietzel, C. S., & Abeles, N. (1975). Client-therapist complementarity and therapeutic outcome. Journal of Counseling Psychology, 22, 264-272.
- Fenichel, O. (1941). Problems of psychoanalytic technique. New York: Psychological Quarterly.
- Fiske, D. W., Cartwright, D. S., & Kirtner, W. L. (1964). Are psychotherapeutic changes predictable? Journal of Abnormal and Social Psychology, 69, 418-426.
- Foreman, S. A., & Marmar, C. R. (1985). Therapist action that addresses initially poor therapeutic alliances in psychotherapy. American Journal of Psychiatry, 142(8), 922-926.
- Freud, S. (1958). The dynamics of transference. In J. Strachey (Ed. and Trans.), The standard edition of the complete works of Sigmund Freud (Vol. 12, pp. 99-108). London: Hogarth Press. (Original work published 1912)

- Freud, S. (1958). On beginning the treatment: Further recommendations on the technique of psychoanalysis. In J. Strachey (Ed. and Trans.), The standard edition of the complete works of Sigmund Freud (Vol. 12, pp. 123-144). London: Hogarth Press. (Original work published 1913)
- Freud, S. (1964). Analysis terminable and interminable. In J. Strachey (Ed. and Trans.), The standard edition of the complete works of Sigmund Freud (Vol. 23, pp. 209-253). London: Hogarth Press. (Original work published 1937)
- Frieswyk, S. H., Colson, D. B., & Allen, J. G. (1984). Conceptualizing the therapeutic alliance from a psychoanalytic perspective. Psychotherapy, 21(4), 460-464.
- Gendlin, E. T. (1962). Experiencing and the creation of meaning. New York: Free Press of Glencoe.
- Gendlin, E. T., Beebe, J., Cassens, J., & Oberlander, M. (1968). Focusing ability in psychotherapy, personality and creativity. In J.M. Shlien, H.F. Hunt, J. D. Matarazzo, & C. Savage (Eds.), Research in psychotherapy (Vol. 3, pp. 217-256). Washington, DC: American Psychological Association.
- Gomez-Schwartz, B. (1978). Effective ingredients in psychotherapy: prediction of outcome from process variables. Journal of Consulting and Clinical Psychology, 46, 1023-1035.
- Greenson, R. R. (1965). The working alliance and the transference neurosis. Psychoanalytic Quarterly, 34, 155-181.
- Greenson, R. R. (1967). The technique and practice of psychoanalysis. New York: International Universities Press.
- Greenson, R. R., & Wexler, M. (1969). The non-transference relationship in the psychoanalytic situation. International Journal of Psychoanalysis, 50, 27-40.
- Gurman, A. S., & Razin, A. M. (1977). Effective psychotherapy: A handbook of research. New York: Pergamon Press.
- Hartley, D. E. (1978). Therapeutic alliance and the success of brief individual psychotherapy. Unpublished doctoral dissertation, Vanderbilt University, Nashville.

- Hartley, D. E. (1985). Research on the therapeutic alliance in psychotherapy. In R. E. Hales & A. J. Frances (Eds.), American Psychiatric Association Annual Review (Vol. 4, pp. 532-549). Washington, DC: American Psychiatric Press.
- Hartley, D. E., & Strupp, H. (1983). Therapeutic alliance: a contribution to outcome in brief psychotherapy. In J. Masling (Ed.), Empirical studies of psychoanalytic theory (pp. 1-37). Hillsdale, NJ: Earlbaum.
- Havens, L. (1976). Participant Observation. New York: Jason Aronson.
- Horowitz, M. J., Marmar, C. R., Weiss, D. S., DeWitt, K. N., & Rosenbaum, R. (1984). Brief dynamic psychotherapy of bereavement reactions: The relationship of process to outcome. Archives of General Psychiatry, 41, 438-448.
- Hugdahl, K. & Ost, L. (1981). On the difference between statistical and clinical significance. Behavioral Assessment, 3, 289-295.
- Hull, C. H., & Nie, N. H. (1981). SPSS update 7-9: New procedures and facilities for releases 7-9. New York: McGraw-Hill.
- Jacobson, N. S., Follette, W. C., & Revenstorf, D. (1984). Psychotherapy outcome research: Methods for reporting variability and evaluating clinical significance. Behavior Therapy, 15, 336-352.
- Kazdin, A. E., & Wilson, G. T. (1978). Evaluation of behavior therapy: Issues, evidence and research strategies. Cambridge: Ballinger.
- Kernberg, O. (1975). Borderline conditions and pathological narcissism. New York: Jason Aronson.
- Klecka, W. R. (1970). Discriminant analysis. In N. H. Nie, C. H. Hull, J. G. Jenkins, K. Steinbrenner, & D. H. Bent (Eds.), Statistical package for the social sciences (2nd ed.). New York: McGraw-Hill.
- Kohut, H., & Wolf, E. S. (1978). The disorders of the self and their treatment: An outline. International Journal of Psychoanalysis, 59, 413-425.
- Langs, R. (1982). Psychotherapy: A basic text. New York: Jason Aronson.
- Lazarus, A. A. (1974). A multimodal behavioral treatment of depression. Behavior Therapy, 5, 549-554.

- Leary, T. (1957). Interpersonal diagnosis of personality. New York: Ronald Press.
- Luborsky, L. (1976). Helping alliances in psychotherapy. In J. L. Claghorn (Ed.), Successful psychotherapy. New York: Bruner/Mazel.
- Luborsky, L. L., Chandler, M., Auerbach, A., Cohen, J., & Bachrach, H. M. (1971). Factors influencing the outcome of psychotherapy: A review of quantitative research. Psychological Bulletin, 75, 145-185.
- Luborsky, L., Crits-Cristoph, P., Alexander, L., Margolis, M., & Cohen, M. (1983). Two helping alliance methods for predicting outcomes of psychotherapy: A counting signs versus a global ratings method. Journal of Nervous and Mental Disease, 171, 480-491.
- Luborsky, L. L., Mintz, J., Auerbach, A., Cristoph, P., Bachrach, H., Todd, T., Johnson, M., Cohen, M., & O'Brien, C. P. (1980). Predicting the outcome of psychotherapy: Findings of the Penn Psychotherapy Project. Archives of General Psychiatry, 37, 471-481.
- Mann, J. (1973). Time-limited psychotherapy. Boston: Harvard University Press.
- Malan, D. H. (1976). The frontiers of brief psychotherapy. New York: Plenum.
- Marmar, C. R., Marziali, E., Horowitz, M. J., & Weiss, D. S. (in press). The development of the therapeutic alliance rating system. In L. S. Greenberg & W. Pinsof (Eds.), The psychotherapeutic process: A research handbook. New York: Guilford Press.
- Marziali, E. (1984). Three viewpoints on the therapeutic alliance; Similarities, differences, and associations with psychotherapy outcome. The Journal of Nervous and Mental Disease, 172(7), 417-423.
- Marziali, E., Marmar, C., & Krupnick, J. (1981). Therapeutic alliance scales: Development and relationship to psychotherapy outcome. American Journal of Psychiatry, 138, 361-364.
- Masterson, J. F. (1978). The borderline adult: Therapeutic alliance and transference. American Journal of Psychiatry, 135, 437-441.

- Mintz, J., Luborsky, L. L., & Cristoph, P. (1979). Measuring the outcomes of psychotherapy-findings of the Penn Psychotherapy Project. Journal of Consulting and Clinical Psychology, 47, 319-334.
- Moras, K., & Strupp, H. H. (1982). Pretherapy interpersonal relations, patients' alliance, and outcome in brief psychotherapy. Archives of General Psychiatry, 39, 405-409.
- Morgan, R., Luborsky, L., Crits-Christoph, P., Curtis, H., & Solomon, J. (1982). Predicting the outcomes of psychotherapy by the Penn Helping Alliance Rating Method. Archives of General Psychiatry, 39, 397-402.
- O'Malley, S. S., Suh, C. S., & Strupp, H. H. (1983). The Vanderbilt Psychotherapy Process Scale: A report on the scale development and a process-outcome study. Journal of Clinical and Consulting Psychology, 51, 581-586.
- Parloff, M. B., Waskow, I. E., & Wolfe, B. E. (1978). Research on therapist variables in relation to process and outcome. In S. L. Garfield & A. E. Bergin (Eds.) Handbook of psychotherapy and behavior change: An empirical analysis (2nd ed.). New York: Wiley.
- Rogers, C. R. (1957). The necessary and sufficient conditions of therapeutic personality change. Journal of Consulting Psychology, 21, 95-103.
- Ryan, E. R. (1973). The capacity of the patient to enter an elementary therapeutic relationship in the initial psychotherapy interview. Unpublished doctoral dissertation, University of Michigan.
- Sachs, J. S. (1983). Negative factors in brief psychotherapy: An empirical assessment. Journal of Consulting and Clinical Psychology, 51, 557-564.
- Salzman, C., Van der Kolk, B. A., & Shader, R. I. (1976). Marijuana and hostility in a small group setting. American Journal of Psychiatry, 133, 1029-1033.
- Sarnat, J. E. (1975). A comparison of psychoanalytic and client-centered measures of initial in-therapy patient participation. Unpublished doctoral dissertation, University of Michigan.

- Shapiro, A. K., & Morris, L. A. (1978). The placebo effect in medical and psychological therapies. In S. L. Garfield & A. E. Bergin (Eds.), Handbook of psychotherapy and behavior change: An empirical analysis (2nd ed.). New York: John Wiley.
- Sifneos, P. E. (1972). Short-term psychotherapy and emotional crisis. Cambridge, Ma.: Harvard University Press.
- Sloan, R. B., Staples, F. R., Cristol, A. H., Yorkson, N. & Whipple, K. (1975). Psychotherapy versus behavior therapy. Cambridge: Harvard University Press.
- Smith, M. L., & Glass, G. V. (1977). Meta-analysis of psychotherapy outcome studies. American Psychologist, 32, 752-760.
- Smith, M. L., Glass, G. V., & Miller, D. (1980). Benefits of psychotherapy. Baltimore: John Hopkins University Press.
- Sterba, R. (1934). The fate of the ego in psychoanalytic therapy. International Journal of Psychoanalysis, 15, 117-126.
- Strupp, H. H., & Hadley, S. W. (1979). Specific versus nonspecific factors in psychotherapy: A controlled study of outcome. Archives of General Psychiatry, 36, 1125-1136.
- Suh, C. S., & O'Malley, S. S. (1982, June). The identification of facilitative therapist factors: Methodological consideration and research findings of a study. Paper presented at the annual meeting of the Society for Psychotherapy Research, Smuggler's Notch, Vermont.
- Sullivan, H. S. (1954). The psychiatric interview. New York: W. W. Norton.
- Tarachow, S. (1963). An introduction to psychotherapy. New York: International Universities Press.
- Ticho, E., Appelbaum, A., Binstock, W. A., & Appelbaum, S. (1971). Panel on recent advances in psychoanalysis and psychotherapy. Bulletin of the Menninger Clinic, 35, 447-460.

Traux, C. B., & Mitchell, K. M. (1971). Research on certain therapist interpersonal skills in relation to process and outcome. In A. E. Bergin & S. L. Garfield (Eds.), Handbook of psychotherapy and behavior change: An empirical analysis. New York: Wiley.

Zetzel, E. (1956). Current concepts of transference. International Journal of Psychoanalysis, 37, 369-376.