


Spring 1990

Parallel Process: An Empirical Investigation

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PARALLEL PROCESS: AN EMPIRICAL INVESTIGATION

by

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A Dissertation submitted to the Faculties of:

The College of William and Mary
Old Dominion University
Eastern Virginia Medical School
Norfolk State University

In Partial Fulfillment of the Requirements for the Degree of

DOCTOR OF PSYCHOLOGY
CLINICAL PSYCHOLOGY

VIRGINIA CONSORTIUM FOR PROFESSIONAL PSYCHOLOGY
January 12, 1990

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DEDICATION

I lovingly dedicate this work to my wife, Lisa and my son, Jonathan. Lisa was there at the beginning. Her encouragement and tolerance helped me to persevere. Jonathan was there at the end. The vibrancy of his being gave me a new understanding of life.

ACKNOWLEDGEMENTS

The task faced by therapists in this study was daunting. They needed to read through pages of instruction and then take responsibility for recruiting other participants and coordinating their involvement in the project. In hindsight, it is not surprising that the data collection phase of the study took almost three years. Special thanks must be given to the therapists who agreed to participate in and then went on to complete the study. Without their participation, the study would not have been possible.

My thanks go to all my committee members. They each made sacrifices of their time and each provided interest and expertise. Special thanks are sent to Dr. Don Kiesler. His support, knowledge of the measures, and general wisdom were greatly needed and appreciated. His willingness to be involved despite the geographic distance will not be forgotten.

To all those who hung in there with me for three years, thanks.

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ABSTRACT

PARALLEL PROCESS: AN EMPIRICAL INVESTIGATION

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The purpose of the present study was to conduct an empirical investigation of parallel process. The study used a cross-sectional design in which 30 therapy relationships and the corresponding supervision relationships were studied. The therapist assessed the behavior manifested by the patient during a targeted therapy session. Following the subsequent supervision session, the supervisor assessed the behavior manifested by the supervisee during the supervision session. In addition, each of the triad participants (patient, therapist, supervisor) rated the level of anxiety they experienced during the targeted therapy and supervision sessions. Measures of interpersonal style for each of the subjects were also obtained.

Correlations were computed between each therapy relationship and the corresponding supervision relationship. The correlations were formed by pairing the therapist's rating of the patient's behavior during the targeted therapy session with the supervisor's rating of the supervisee's behavior during the targeted supervision session.

In 67 percent of the triads the Pearson product-moment correlations were significant. Across all triads, 20 percent of the variation in the patient's behavior during the targeted therapy session could be accounted for by the variation in the supervisee's behavior during the targeted supervision session.

Regression analyses were used to investigate conditions which might facilitate the occurrence of parallel process. No relationship was found between the level of anxiety

experienced by the subjects during the targeted sessions and the occurrence of parallel process. The level of complementarity, as derived by the pairings in interpersonal styles between the participants in each relationship, also failed to predict the occurrence of parallel process.

The results of a two-way analysis of variance with repeated measures indicated that the behavioral profile obtained by patients was similar to the profile obtained by supervisees. The finding suggested that helpes, whether patients or supervisees, tended to manifest similar behaviors. It was concluded that the occurrence of parallel process may be due to the similarity in role relationship between the patient and therapist in therapy and the supervisee and supervisor in supervision.

CHAPTER ONE

INTRODUCTION

In 1955, Searles observed that "the processes at work currently in the *relationship between patient and therapist* are often reflected in the *relationship between therapist and supervisor*" (p. 157). Searles referred to his observation as the reflection process. He believed the reflection process provided crucial information concerning processes occurring in the corresponding therapy. Thirty-one years later, approximately one half of the respondents of a random sample of fellows and members of the American Psychological Association reported having experienced a similar phenomena, termed parallel process, in their supervision relationships (Aldrich & Hess, 1986). One might expect that such a prevalent and potentially important phenomenon would be widely studied. Yet, since 1955, only three studies have systematically studied parallel process (Doehrman, 1971; Clavere, 1982; Friedlander, Siegel, & Brenock, 1989). The present research will further investigate the parallel process phenomenon and attempt to find empirical evidence for its existence.

Definitions of Parallel Process

A number of authors using a variety of labels have described phenomena that are strikingly similar to Searles' reflection process (Hora, 1957; Kieser, 1957, Ekstein & Wallerstein, 1958; Arlow, 1963). Doehrman (1971) used the label parallel process as a generic term to subsume these similar phenomena. In general usage, parallel process refers to the similarity between the processes occurring in a given therapy relationship and the corresponding supervision relationship. The following paragraphs will briefly review the major definitions of parallel-process-like phenomena.

Analytic theorist have most often defined parallel process as the recapitulation in

supervision of processes occurring in therapy. In describing the reflection process, Searles (1955) provided the first articulation of the analytic perspective. Hora (1957) did not explicitly refer to the reflection process but described a similar process in which the "supervisee unconsciously identifies with the patient and involuntarily behaves in such a manner as to elicit in the supervisor (those) very emotions which he himself experienced while working with the patient" (p. 770). Arlow (1963) discusses a similar phenomenon which he refers to as a transient identification.

Kieser is one of the few analytic theorists who discusses the recapitulation in therapy of processes occurring in supervision. Kieser, as quoted by Sloane (1957) refers to this process as the "counter-countertransference reactions in the candidate, in which the latter behaves toward the patient in the same way as the supervisor behaves toward him" (p. 543). The concept of counter-countertransference takes the mirror of Searles' reflection process and turns it around.

Ekstein and Wallerstein (1958) and Doehrman (1971) emphasized the recapitulation in therapy of processes occurring in supervision although they also discussed the reverse phenomenon, i.e., therapy processes manifested in supervision. According to Ekstein and Wallerstein (1958), when parallel process is exhibited, "the therapist and patient seem to be constantly working on the same problems ... It is as though we work with a constant metaphor in which the patient's problem in psychotherapy may be used to express the therapist's problem in supervision - and vice versa" (p. 179-180). Doehrman (1971) did not explicitly define parallel process although her perspective is reflected in the major hypothesis of her study: the processes occurring in the supervisor-therapist relationship would affect and be reflected in the concurrent therapist-patient relationship.

Aldrich and Hess emphasize the bi-directional nature of parallel process. They propose that "the parallel process ... refers to the manner in which the two 'parallel' relationships the supervisor-supervisee and the patient-therapist relationship influence each other" (Aldrich & Hess, 1986, p. 1).

As the above review indicated, definitions of parallel process differ primarily on the issue of directionality. Analytic theorists typically emphasize the recapitulation of therapy processes in supervision. Ekstein and Wallerstein and Doehrman focus instead on the opposite direction of influence, i.e., the mirroring of supervision processes in the therapy. Broader perspectives emphasize bi-directionality.

Models of Parallel Process

Following is a review of the models which have been proposed to explain the parallel process phenomenon. In reviewing the models and in all subsequent discussion, the term parallel process will be used to subsume all parallel-process-like phenomena, i.e., the reflection process, the transient identification, etc.

Searles' Reflection Process

Searles (1955) believes unconscious identification is involved in producing parallel process. According to Searles, the process is initiated when the therapy hits upon areas of the patient's personality which are associated with intense anxiety. As this intense anxiety is elicited in the patient, "the therapist experiences a stirring of his own anxiety with regard to the comparable area of his own personality" (Searles, 1955, p. 172). The therapist attempts to cope with this anxiety by unconsciously identifying with either the particular defense the patient is using or the complement of that defense. The therapist will then unconsciously act out the patient's anxiety and defense (or their complements) in the supervision, reenacting the therapy process in the supervision. In a sense, the therapist is "unconsciously saying to the supervisor 'the way you are feeling now is the way I feel much of the time during my hours with the patient'" (Searles, 1955, p. 174).

Searles distinguishes between the identification with a defense and identifying with the complement of that defense. When the therapist is identifying with the patient's confusion, he or she will display a similar confusion in the supervision. If the patient's defensive stance is accusatory and the therapist is identifying with the complement of accusation, the therapist will carry to supervision feelings of being accused.

According to Searles, the direction of the reflection process is determined by the distribution of anxiety across the participants. It is the individual experiencing the most anxiety who will unknowingly initiate the dynamics which produce the reflection process. The reflection process most often flows from the therapy to the supervision because the experience of anxiety is typically greatest in the patient, less intense as it is shared in the therapy relationship, and experienced least by the supervisor. These differences in anxiety are due to the relative differences in the levels of self awareness and the depths of emotional involvement of the three participants. Nonetheless, Searles (1955) noted that there were situations in which "the therapist's or even the supervisor's anxiety is more intense than that of either of the other two participants" (p. 174). The mirror of the reflection process, now turned around, results in the therapist unconsciously acting out in therapy the anxiety of the supervision.

Hora's Unconscious Identification

Hora's (1957) perspective is very similar to that presented by Searles but he conceptualizes the parallel processes as an unconscious communication. By unconsciously acting out the patient's behavior, the therapist is communicating to the supervisor his or her experience of the patient during therapy.

Hora places the therapist at the center of a communication process. The therapist is attempting to understand the patient's experience and communicate this understanding to the supervisor. There are times when the patient has difficulty communicating the experience of therapy to the therapist. The most prominent reason for the communication difficulty involves the intrusion of anxiety. Anxiety, experienced by the patient or inherent in the patient's message, is difficult to accurately communicate. In an attempt to maintain the empathic linkage with the patient, the therapist unconsciously incorporates or introjects aspects of the patient. Consequently, traces of the patient's personality become manifest in the therapist. The therapist then carries these personality traces to supervision where they are acted out. "Thus the supervisee ... involuntarily behaves in such a manner as to elicit in the supervisor these

very emotions which he himself experienced while working with the patient but was unable to convey verbally" (Hora, 1957, p. 770).

Arlow's Duality of Ego Functioning

Arlow's perspective is essentially an elaboration of the formulations provided by Searles and Hora. As a supervisor, he too was aware of times during supervision when the therapist unconsciously identified with the patient. Arlow (1963) noted that when the "transient" identification occurred, the therapist "unconsciously shifted his role from reporting the data of his experience with the patient to 'experiencing' the experience of the patient" (p. 579).

According to Arlow, during therapy and supervision each of the participants oscillates between different roles. In therapy, "the patient oscillates between experiencing and reporting, while the therapist oscillates between identifying with the patient and observing him" (Arlow, 1963, p. 581). These oscillations are paralleled in supervision; the therapist is now experiencing and reporting and the supervisor is identifying and observing.

Arlow believes role oscillation is a normal process and essential to the goals of therapy and supervision. It allows the patient to stand off from his experience and begin to understand his or her neurotic struggle. It allows the therapist to empathize with the patient without getting lost in an identification with id-oriented wishes and fantasies. Additionally, the oscillation in roles makes it possible for the therapist to communicate to the supervisor both the data of the patient as well as the patient's experience. By itself, role oscillation can produce momentary examples of parallel process.

A more persistent and disruptive form of parallel process results from the loss of ability to shift between the role of observer to the role of participant. According to Arlow, the ability to freely shift between roles is made possible by the duality of ego functioning. It is the ability of the ego to function in dual modes that allows the therapist to both experience an identification process and self-observe that experience. If there is a breakdown in the duality of ego functioning, the therapist is no longer able

to self-observe the identification process and becomes vulnerable to developing an identification with the patient's id impulses or fantasy wishes. The id-oriented identification produces a community of defenses, i.e., the utilization of a common defense or resistance by both the patient and the therapist. Arlow believes it is the therapist's unconscious manifestation in the supervision of defenses used by the patient in the therapy which produces a disruptive parallel process.

Ekstein and Wallerstein's Parallel Process

Unlike the analytic theorists, Ekstein and Wallerstein (1958) do not use the language of pathology. Instead, they discuss growth and the impediments to growth. Ekstein and Wallerstein note that both the patient and supervisee are in a situation focused on learning. The learning goals involve growth and change, something both sought and feared. Ekstein and Wallerstein believe that the parallel process is rooted to the characteristic manner in which each of the participants avoid learning.

The authors distinguish between "learning problems" and "problems about learning". Learning problems refer to difficulties associated with the therapy. More specifically, learning problems refer to "the predisposition (of the therapist) to react in a particular patterned way to the patient" (Ekstein & Wallerstein, 1958, p. 137). The predisposition of the therapist tends to limit his or her free response to the patient. Instead, "he acts and responds ... in ways that are determined, not by the needs of the patient, but by characteristically, automatic, and inappropriate patterns in himself" (Ekstein & Wallerstein, 1958, p. 158).

"Problems about learning" refers to impediments to growth associated with supervision. The therapist's characteristic ways of acting and responding are also present in his or her role as supervisee. In addition, the supervisor brings a particular character make-up and mode of teaching. Together, the characteristic styles of supervisee and supervisor define the problems about learning, i.e., "the predilections and idiosyncracies brought by each to the (supervision) interaction, which together determine what will be learned and how it will be learned" (Ekstein & Wallerstein, 1958, p. 140-141).

Each participant in the triad manifests a characteristic and patterned manner of acting and responding. The fitting together of these tendencies is ultimately responsible for the parallel process. Ekstein and Wallerstein (1958) believe the therapist is most often central to the production of parallel process because the therapist is "prone to respond to those aspects of his patient's problems that highlight his own specific learning problems as these are activated around his expectations in the supervisory process" (p. 178). Nonetheless, they note that the influences producing parallel process are bi-directional. At times there are "problems in teaching" which results in supervision processes being recapitulated in the therapy.

Doehrman's Transference Disposition

Doehrman (1971) does not explicitly provide a theory explaining parallel process, although her presentation suggests her theoretical orientation is analytic. Her perspective approximates the model presented by Ekstein and Wallerstein. The major difference is one of language rather than substance; she does not hesitate to use the language of pathology.

Doehrman ties the parallel process phenomenon to the transference dispositions of the therapist and supervisor although she emphasizes the role of the therapist. By transference disposition, she is referring to the tendency to reenact in current relationships interaction patterns that are tied to early development. Doehrman equates transference disposition with neurotic disposition. She is not implying that all therapists and supervisors are neurotic, but rather that all people have core conflicts relating to interactions with significant others during early development. These core conflicts result in a propensity to interact with significant others in a manner which may have neurotic consequences.

According to Doehrman, the structural arrangement of the supervision relationship, i.e., the differences in age, status, and training which typically place the therapist in a subordinate position, will engender anxiety in the therapist. The anxiety reawakens transference dispositions in the therapist which are acted out in the

supervision. The resulting relationship becomes bound by the transference dispositions of both the therapist and the supervisor. The transference bind formed in the supervision is then acted out by the therapist in the therapy. The patient responds to the therapist in a way which highlights his or her own neurotic dispositions, producing a complementary fit between the patient's and therapist's transference dispositions. As a result, there is a meshing of transference patterns between patient, therapist, and supervisor, creating "a two-way transference and countertransference bind in the supervisory and therapeutic relationships" (Doehrman, 1971, p. 205) -- the parallel process.

Doehrman noted that when the therapist is acting out in the therapy, he or she may be displaying the same or opposite style that was experienced during the supervision. The notion of displaying the same versus opposite style is isomorphic with Searles' idea of acting out a defense or its complement.

Research on Parallel Process

The models of parallel process discussed above were derived almost exclusively from anecdotal evidence and unsystematic clinical observations. As cited in the outset, only three studies have systematically investigated parallel process. The following paragraphs will briefly review these three studies.

The major study investigating parallel process was conducted by Doehrman (1971) as part of her doctoral dissertation. Using a clinical analysis of interview data, eight sets of concurrent therapy-supervision processes were examined. The sample consisted of eight triads (patient, therapist, supervisor). The subjects included: eight patients, four student therapists (each provided therapy to two different patients), and two supervisors (each provided supervision to two different therapists). The therapists were all doctoral students in clinical psychology. One of the supervisors was a clinical psychologist and the other was described as an experienced psychiatric social worker. The patients were described as having "problems of a neurotic or characterological nature, appropriate for outpatient treatment" (Doehrman, 1971, p. 33). None of the

patients had received previous treatment.

The research data was predominately derived from structured interviews. Each therapist-supervisor pair were interviewed jointly for twenty consecutive weeks. A summary interview was conducted at the end of twenty weeks and a follow-up interview was done at three months. The interviews were designed to assess the current therapeutic situation, transference and countertransference issues in the therapy, and the dynamics of the supervision relationship. Patients were interviewed following most of their therapy sessions. These interviews evaluated, from the patient's perspective, the affective quality of the therapy relationship, therapeutic progress, and the therapist's level of skill. All interviews were conducted by the researchers, who were aware of the research hypotheses.

Based on her analysis of the clinical data, Doehrman found substantial evidence for the existence of parallel process. In every case, there was evidence of "the therapist behaving with their patients in the same (or opposite) way that they experienced their supervisors as behaving towards them" (Doehrman, 1971, p. 199). Though it was reported that the most common form of parallel process involved the recapitulation in therapy of processes occurring in supervision, the study did, nonetheless, find support for Searles reflection process; "all four therapists made a temporary identification with one of their patients, acting out with their supervisors the patient's impulse-defense patterns" (Doehrman, 1971, p. 214). Finally, she noted that the research involvement itself became an element in the parallel process. Doehrman (1971) concluded that her findings indicated "that the parallel process phenomenon occurs and recurs in a remarkable multiplicity of directions" (p. 217).

Doehrman's research was not intended to be experimental in nature. The study made no attempt to control for the bias of the researcher. Nonetheless, the study represents an significant advance over the anecdotal data which preceded it. Perhaps its greatest power was in the prevalence of its findings. In Doehrman's study, parallel process was ubiquitous.

Clavere (1982) studied ten triads. Every two weeks every subject was administered alternate forms of an interpersonal attractiveness measure. These measures generated the following attractiveness scores: patient attractiveness to therapist; therapist attractiveness to patient; supervisor attractiveness to therapist; therapist attractiveness to supervisor. The attractiveness scores were used to compute correlations between the level of attraction in therapy and the level of attractiveness in supervision. Clavere found that as the level of attraction between the patient and therapist increased, the level of attraction between the therapist and supervisor either decreased or increased. The evidence for an inverted parallelism was just as prevalent as evidence for a direct parallelism. Clavere concluded that 25% of the variance in the level of interpersonal attractiveness in the therapy relationship could be explained by level of interpersonal attractiveness in the supervision relationship and vice versa. He believed the impact of the supervisory relationship was greater on the therapy relationship than the reverse case but did not cite his reasoning.

Though Clavere's study provides empirical evidence of interactive influences occurring between the therapy and supervision relationships, the choice of interpersonal attractiveness as the assessment instrument was an unfortunate one. It is not clear how the level of interpersonal attractiveness relates to more substantive interpersonal processes occurring in the therapy and supervision relationships.

Friedlander, Siegel, and Brenock (1989) studied one triad over eight sessions of counseling. Evidence for parallel process was found in session evaluation, relational control, and self-presentation. Measures of relational control and self-presentation yielded complementary patterns. Supervisors and counselors were nurturant, leading in their statements, and in control of the communication. Patients and supervisees displayed the complementary patterns of cooperation, non-nurturance, and a willingness to be lead. The authors noted "that both relationships could be characterized as mainly supportive and friendly with a notable lack of conflict" (Friedlander, Siegel, & Brenock, 1989, p. 155).

As the preceding review indicates, there is a paucity of research investigating parallel process. Clavere's study focused on variables that did little to foster a better understanding of the phenomenon. The studies done by Doehrman (1971) and Friedlander, Siegel, & Brenock (1989) were clinically rich, but the case study methodology limits the ability to generalize the findings.

The current study will attempt to empirically validate parallel process. First, the models of parallel process will be reexamined in order to develop a theoretical consensus. The theoretical consensus will then be used to develop a research framework for systematically investigating parallel process.

The Theoretical Consensus

Parallel process models presented in the preceding sections converged on a number of core conceptual areas. Following is a list of these areas:

- 1) Phenomena which trigger parallel process;
- 2) Conditions conducive to parallel process;
- 3) Mechanisms of parallel process;
- 4) Processes being paralleled across the relationships;
- 5) Directionality in parallel process;

These areas will be reexamined in an attempt to derive a theoretical consensus across different parallel process models.

Phenomena Which Trigger Parallel Process:

The argument can be made that every model of parallel process identifies anxiety as being responsible for triggering a set of events which result in parallel process. The models proposed by Searles, Hora, and Doehrman clearly attribute the initiation of parallel process to the experience of anxiety. Arlow identifies the breakdown in the duality of ego functioning as being responsible for the therapist "sharing" the patient's defenses which, in turn, produces parallel process. The use of defenses implies the presence of anxiety. By implication, anxiety is once again the trigger for parallel process. Ekstein and Wallerstein state that parallel process is associated with the inherent

resistance to change all people experience. If the experience of resistance is not one of anxiety, it is at least one of discomfort. To the extent that subjective discomfort is similar to the experience of anxiety, the Ekstein and Wallerstein model is consistent with the others.

It is unlikely that every experience of anxiety in the therapy or supervision relationship will trigger the occurrence of parallel process. Unfortunately, none of the models specify the level of anxiety that will activate parallel process. Instead, the focus tends to be on the nature of the anxiety which triggers parallel process. The models presented by Searles, Hora, and Arlow suggest it is the inability of the therapist to tolerate the anxiety of the empathic linkage with the patient that triggers the events resulting in parallel process. Anxiety experienced in the empathic linkage can be thought of as being embedded in the relationship, and therefore interpersonal in origin. In order to emphasize its interpersonal roots, such anxiety will subsequently be referred to as relationship-anxiety. Thus, in the view of Searles, Hora, and Arlow, it is some unspecified level of relationship-anxiety which activates the mechanisms of parallel process.

Doehrman believes that anxiety is an inevitable byproduct of the structural arrangement of the supervision relationship. For the therapist, the structural arrangement encourages an unrealistic perception of the supervisor's role. According to Doehrman, the therapist's subordinate position reawakens transference dispositions which, in turn, infuses the supervision with anxiety. Anxiety which is experienced as a consequence of the supervision relationship is, again, interpersonal in origin and will be referred to as relationship-anxiety. Once more, it is relationship-anxiety (in this case embedded in the supervision) that is responsible for triggering the events leading to parallel process.

In summary, the theoretical consensus suggests that the presence of anxiety, embedded in one or both of the relationships, is responsible for triggering the events which produce parallel process. The present paper will refer to anxiety that is

interpersonal in origin as relationship-anxiety. None of the models specify the level of relationship-anxiety that would be necessary to trigger parallel process.

Conditions Conducive to Parallel Process

Collectively, the models predict a number of conditions which would be conducive to the manifestation of parallel process. These are not triggering mechanisms like anxiety but rather characteristics of one or both of the relationships which seem to increase the probability that parallel process will occur.

Searles as well as Ekstein and Wallerstein believe that the less experienced therapist is more vulnerable to the development of parallel process. Searles (1962) also identifies two early stages of therapy, the ambivalent and preambivalent stages, as the times when parallel process is most likely to occur. According to Searles, during these early stages of therapy, the therapist and patient tend to be relatively fused. The enmeshed relationship results in an intermingling of dependency longings and autonomy striving which, in turn, tends to infuse the relationship with additional anxiety. Consistent with earlier arguments concerning the role of relationship-anxiety, the increase of anxiety in the relationship heightens the probability that parallel process will occur.

Mechanisms of Parallel Process

Each of the orientations state that the process of acting out is the primary mechanism creating parallel process. According to the models proposed by Searles, Hora, and Arlow, the therapist identifies with the patient and then acts out the identification during the supervision, producing the parallel process. Doehrman states that parallel process is a result of the therapist acting out his or her transference dispositions in both the supervision and the therapy. Though Ekstein and Wallerstein avoid analytic language, their framework closely matches the one provided by Doehrman. The findings from Doehrman's study indicate that both the acting out of identifications and the acting out of transference dispositions can be involved in parallel process.

Processes Being Paralleled Across the Relationship

Though each of the models of parallel process refers to a mirroring of processes across two concurrent relationships: therapy and supervision, the models differ in terms of what processes are being paralleled. According to Searles, anxiety and the defenses against anxiety form the substance of what is being reflected from one relationship to the other. The models proposed by Hora and Arlow are consistent with Searles' orientation. Doehrman believes it is an identity or role connected to a particular relationship paradigm that is being paralleled across the relationships. Ekstein and Wallerstein present a model which is similar to Doehrman's model.

In the Searles framework there are two perspectives concerning what is being paralleled across the relationships: the mirroring of defenses and the mirroring of the impact resulting from the use of those defenses. In other words, during therapy the patient's defensive behavior has an impact on the therapist, i.e., it elicits particular feelings or cognitions in the therapist. The defensive behavior of the therapist produces the same impact on the supervisor during the supervision. Thus, both defensive behaviors and the interpersonal impacts associated with the display of those defenses are paralleled across the relationships. The same basic commentary could be made with respect to the models presented by Arlow and Hora.

By framing defenses as behaviors with interpersonal impacts, the gulf between Searles and Doehrman is narrowed. In Doehrman's model, an identity or role (or transference disposition) is paralleled across the relationships. It is clear that a role or identity implies an interpersonal style defined by a particular kind of interpersonal behavior. Particular interpersonal behaviors will have the effect of eliciting particular interpersonal responses. Thus, in Doehrman's model, the mirroring of interpersonal behaviors must also include the mirroring of interpersonal impacts. Consequently, the models of Searles and Doehrman can each be conceptualized as a mirroring of interpersonal behaviors (in the form of defenses or transference dispositions) as well as a mirroring of interpersonal impacts (cognitive and/or affective).

Searles alludes to the mirroring across relationships of the complement of the

original defense. Similarly, Doehrman notes that the therapist may take on a role at either one or both poles of a relationship paradigm. Both theorists believe that the display of an opposite behavior is conceptually connected to the original behavior. The implication is that a given interpersonal behavior may be best conceptualized as existing on a continuum formed by a bipolar contrast, eg. dominance versus submission. Thus, when a behavior opposite to the original is mirrored across the relationships, it represents the opposite pole of a bipolar continuum.

Directionality in Parallel Process

There are two major perspectives concerning the directionality of parallel process: the analytic orientation as presented by Searles and the position taken by Ekstein and Wallerstein and shared by Doehrman. Searles and most analytic theorists emphasize the manner by which processes occurring in therapy are reflected in the supervision relationship. Ekstein and Wallerstein and Doehrman emphasizes the recapitulation of supervision processes in the therapy relationship although they also discuss the bi-directional influences of parallel process.

The models proposed by Searles and Doehrman explain the directionality of parallel process in similar ways. Each model relates parallel process to a "stirring up" of anxiety in one of the participants. The models differ as to which of the participants is believed to be most powerful with respect to stirring up that anxiety. Searles believes that the anxiety elicited in the therapist by the patient directs the parallel process. Doehrman proposes that the anxiety elicited in the therapist by the supervisor determines the direction of the parallel process.

The divergent perspectives may be attributable to the lens with which parallel process is viewed. Given that the two relationships mirror each other, one can always look at one of the relationships and see evidence of processes occurring in the other relationship. Thus, Searles looks at the supervision process and finds the therapy process; Doehrman looks at the processes occurring in therapy and finds the supervision process. The issue of directionality is perhaps best resolved by conceptualizing parallel

process as a bi-directional phenomenon.

The Research Framework

The theoretical consensus derived from the preceding review will be translated into a research framework that will be used to investigate parallel process. The formulation of the research framework will begin with the development of a working definition of parallel process.

There are a variety of processes which may be mirrored across the therapy and supervision relationships. The preceding review indicated that the most significant of these interpersonal processes were defensive behaviors, transference dispositions, and interpersonal impacts. The review also pointed out that these interpersonal processes could be characterized as interpersonal behaviors, with corresponding interpersonal impacts. The working definition will use the latter conceptualization because it is more easily operationalized.

There is considerable disagreement concerning the prevalent direction in which parallel process flows -- therapy to supervision versus supervision to therapy. As noted above, parallel process is best conceptualized as a bi-directional phenomenon. Bi-directionality implies a systems perspective (von Bertalanffy, 1966). If therapy and supervision are thought of as two interacting systems, it is conceptually misleading to emphasize one directional flow of influence to the exclusion of the other. Applying the systems perspective to the working definition, it would be unnecessary as well as ill advised to specify a direction of influence.

The above commentary has been incorporated into the following working definition of parallel process: Given a therapy relationship and a corresponding supervision relationship, parallel process refers to the recapitulation in one of the relationships of a pattern of interpersonal behaviors and/or their impacts occurring in the other relationship. The use of the working definition as a vehicle to generate empirical evidence for parallel process will require that the concepts of interpersonal behavior and interpersonal impact be operationally defined.

Research is always limited by the size of the sample that can be obtained. Given the inherent limitation associated with sample size, it is important to identify the conditions most favorable to the manifestation of parallel process, in order that they may be incorporated into the research design. By theoretical consensus, it appears that relationship-anxiety is responsible for activating the mechanisms which produce parallel process. Therefore, factors which tend to increase relationship-anxiety will also tend to increase the likelihood of parallel process occurrence. Some of these factors have already been discussed, e.g., inexperienced therapists and early stages of therapy. Other factors follow from the assumed relationship between relationship-anxiety and parallel process occurrence, e.g., diagnostic categories like *Borderline Personality* that are likely to increase anxiety in the relationship. To the extent that it is possible, these factors will be incorporated into the research design.

The preceding discussion assumes there is a relationship between the construct of relationship-anxiety and parallel process. It will be necessary to operationally define the construct of relationship-anxiety if its assumed association with parallel process is to be verified. An operational definition of relationship-anxiety can also assist in determining the level of anxiety that is necessary to trigger parallel process.

The theoretical consensus indicates that an adequate investigation of parallel process will require that the constructs of interpersonal behavior, interpersonal impact, and relationship-anxiety be operationally defined. Circumplex measurement, the assessment instrument associated with interpersonal theory, provides a method for operationally defining interpersonal behavior and interpersonal impact.

In the following sections interpersonal theory and circumplex measurement will be briefly reviewed. The review will consist of three major parts. First, Sullivan's contributions to interpersonal theory will be summarized. Next, attempts to operationalize key elements of Sullivan's work will be discussed. Finally, relevant circumplex models will be reviewed with the goal of choosing the most appropriate instruments for use in investigating parallel process. Following the review of

interpersonal theory and circumplex measurement, a method for operationalizing relationship-anxiety will be discussed.

Sullivan's Interpersonal Theory

Harry Stack Sullivan (1953) provided the first systematic presentation of interpersonal theory. All subsequent conceptualizations are essentially attempts to further systematize and operationalize Sullivan's original formulations. The following review will focus on those aspects of Sullivan's work which are most relevant to the investigation of parallel process.

Sullivan's central interpersonal formulations are derived from his conceptualizations of euphoria, tension, and need. Sullivan defined euphoria as a theoretically ideal construct which referred to the state of absolute well-being. Tension is a relative condition defined by the degree of deviation from euphoria. Needs acquire meaning by the activities associated with the satisfaction of tensions. For example, repeated experiences of stomach contractions and subsequent eating behavior is the associational process by which the hunger need becomes differentiated from general organic tensions.

Sullivan's interpersonal formulations of personality development are based on two primary theorems. The first of these theorems is referred to as the theorem of tenderness. Sullivan believes there is a generic group of tensions in the infant which requires the cooperative behavior of a "mothering one" in order to be satisfied. According to Sullivan, the experience of these tensions in the infant is in some way communicated to the mothering one. Sullivan believes the communication occurs in a manner that is similar to empathy. Thus, the infant's tension has the effect of eliciting in the primary caretaker a complementary tension which acts as a motivator for activities that bring about relief. Sullivan refers to the tension evoked in the mothering one as tenderness. The pattern of repeated intervention which results in a satisfaction of tensions comes to be experienced by the infant as a need for tenderness. The theorem of tenderness postulates the presence of a perfect complementarity between the child's

needs and the responses of the mothering one.

The theorem of anxiety is in some ways the opposite of the theorem of tenderness. According to Sullivan (1953), "the tension of anxiety, when present in the mothering one, induces anxiety in the infant" (p. 41). The activities available to the infant can not elicit responses in the parent that can bring about relief because the source of the tension is the parent's anxiety. Thus, anxiety is an inherently interpersonal process which is experienced as unmanageable. Since the tension of anxiety in the infant does not elicit a complementary response from the mothering one, the theorem suggests that the experience of anxiety is associated with noncomplementarity between the infant and the primary caretaker. Again, Sullivan believes the modality of communication between the child and parent is similar to empathy.

Sullivan differentiates needs associated with the tension of anxiety from all other needs. The tension of anxiety has an interpersonal origin whereas other needs are associated with tensions which have biological sources. Sullivan refers to the need to minimize interpersonal anxiety as the need for interpersonal security; needs associated with biological tensions are referred to as needs for satisfaction. Sullivan believes that the need for interpersonal security is the primary regulator of interpersonal relations.

Sullivan's (1953) theorem of reciprocal emotion states that two people coming together "in an interpersonal situation is a reciprocal process in which (1) complementary needs are resolved, or aggravated; (2) reciprocal patterns of activity are developed, or disintegrated; and (3) foresight of satisfaction, or rebuff, of similar needs is facilitated" (p. 198). As will be discussed, the theorem of reciprocal emotion is an extension of the theorem of tenderness that incorporates the changing interpersonal reality of the developing infant.

The theorem of tenderness identified a perfect complementarity between the needs of the mothering one and the needs of the infant, i.e., the need of the infant interacted with the need of the mothering one in a way that satisfied both interactants. As the child matures, other social responsibilities of the mothering one interfere with the

ability to always respond with complementary behaviors. Thus, the theorem of reciprocal emotion includes the emerging reality of noncomplementarity.

During infancy, there was a steady development in cooperative behaviors between the mothering one and the infant. For example, the infant displayed a steady growth in nursing behavior and the mothering one provided a steady pattern of availability. As the infant matures, patterns of cooperative behavior may continue to develop or be discontinued.

Foresight of satisfaction alludes to an expectation of continued satisfaction of needs in interpersonal situations. Foresight of rebuff implies an expectation of frustration accompanying the manifestation of needs. Thus, with the pressure of socialization, reciprocity in interpersonal relations is no longer guaranteed.

Sullivan defined self-dynamism as the relatively enduring pattern of interpersonal behavior which recurrently characterizes the individual. The self-dynamism has also been referred to as the Self or self-system. Sullivan's definition of self-dynamism closely approximates his concept of personality: "the relatively enduring patterns of recurrent interpersonal situations which characterize a human life" (Sullivan, 1953, p. 111). The similarity is appropriate because personality is, in a sense, the interpersonal manifestation of the self-dynamism.

The self-dynamism is a conscious, cognitive structure which develops as a consequence of the infant's early interactions with the mothering one. The contents of the self-dynamism are derived from reflected appraisals or interpersonal feedback experienced by the infant during interactions with the mothering one. The function of the self-dynamism is to minimize the experience of anxiety. The process of selective inattention is the mechanism by which the experience of anxiety is controlled. Reflected appraisals which elicit anxiety or are disconfirming to the Self become targets of selective inattention. The greater the degree of anxiety that has entered into the formation of the self-dynamism, the greater will be the individual's need to minimize the experience of anxiety in subsequent interpersonal relations.

Following is a summary of Sullivan's contributions. The theorem of reciprocal emotion indicated that a continuing interpersonal relationship would be characterized by behavioral reciprocity. The presence of reciprocity indicated the existence of a complementarity of needs between the interactants. Failure to achieve behavioral reciprocity would reflect a noncomplementarity of needs and would lead to a termination of the relationship. Complementarity is mediated by an empathic process in which an individual's behavior "calls forth" an emotional reaction in the other, resulting in a reciprocal response. Interpersonal feedback which is disconfirming to the Self arouses anxiety; the avoidance of this anxiety is the primary regulator of interpersonal relationships. Relationships which continue despite the experience of disconfirming feedback would be characterized by behavioral nonreciprocity, noncomplementarity of needs, and anxiety.

Operationalizing Sullivan's Contributions

In a series of publications beginning in the early 50's, a group of researchers associated with the Kaiser Foundation set out to systematize and operationalize Sullivan's interpersonal theory (Freedman, Leary, Ossorio, & Coffey, 1951; LaForge & Suczek, 1955; Leary & Coffey, 1955; Leary, 1955; Leary, 1957; Leary 1958). Timothy Leary is the person most often associated with the Kaiser Foundation's attempt to concretize Sullivan's theory and subsequent discussion will refer to this work as the Leary System.

The aim of the Kaiser foundation group was to narrow the universe of interpersonal variables to a workable number and then develop a structure which would conceptually relate the variables to one another. After "a close-fought battle with empirical fact" (LaForge, cited in Wiggins, 1982, p. 187), sixteen variables were identified and arranged on a circular continuum along two orthogonal axes: dominance - submission and love - hate. The structure formed by the arrangement of interpersonal variables along a circular continuum was referred to as an interpersonal circle.

The development of the interpersonal circle succeeded in providing a conceptual

relationship which synthesized the universe of interpersonal variables. Interpersonal variables falling in neighboring categories on the perimeter of the circle would be theoretically similar and highly correlated. Interpersonal variables falling into categories at opposite ends of the circle would be logically dissimilar and highly negatively correlated.

LaForge and Suczek (1955) developed the Interpersonal Adjective Checklist (ICL) in order to measure the variables classified by the interpersonal circle. With the development of a measuring device, it became possible to operationally define any number of interpersonal variables. Leary (1957) used the ICL to operationalize the constructs of interpersonal reflexes and interpersonal traits. In more recent usage, the construct of interpersonal reflex has been referred to as interpersonal behavior. In the Leary System, interpersonal reflexes (or behaviors) were operationalized by using the ICL to rate the impact on a relationship of a target subject's behavior. Interpersonal traits were operationalized by the subject's self report on the ICL of his or her interpersonal style. As operationally defined, the construct of interpersonal trait is equivalent to Sullivan's construct of self-dynamism.

The interpersonal circle is a theoretical conceptualization of interpersonal behavior. Validation of the theory would require the presence of empirical evidence relating to both common factors and order factors. Common factors refer to the number of dimensions required to account for the variance in measures of interpersonal variables. A factor analysis of the intercorrelations between measures of interpersonal variables should yield two major factors; the factors should resemble Leary's dimensions of Dominance - Submission and Love - Hate. Validation of order factors requires that the pattern formed by the intercorrelations between the interpersonal variables be circular. Guttman (1954) referred to the circular ordering of a matrix of intercorrelations as a circumplex. In a circumplex, the correlation of any specified variable with its neighbor decreases monotonically in size and then increases monotonically as a function of their sequential separation.

Though Leary (1957) stated that "extensive validation of the circular continuum of sixteen interpersonal variables has demonstrated that it is satisfactorily consistent with empirical facts" (p. 66), he provided limited data to support his claim. Foa (1961) evaluated unpublished material provided by one of Leary's associates, LaForge, and concluded that the data supported the hypothesis of circular ordering although some deviations were apparent. Additionally, a factor analysis of the correlations identified two substantive factors which Foa referred to as Dominance - Submission and Hostility - Affection.

Foa also reviewed a number of other studies focusing on interpersonal behavior that were unrelated to the work done by Leary (Carter, 1954; Borgatta, Cottrel, & Mann 1958; Schaeffer, 1959). Each of the studies found major factors that were strikingly similar to those proposed in the Leary System. There was evidence of partial circumplex ordering in those studies which provided intercorrelational order factors. The degree of deviation from a perfect circumplex ordering was a function of the extent of bias in the selection of interpersonal variables, i.e., the greater the bias in the direction of sociability and control, the greater was the deviation from a perfect circumplex.

Foa concluded that there was substantial empirical evidence supporting the presence of a circular ordering structure by which interpersonal behavior could be organized. He noted that the convergence of results from different studies is particularly noteworthy "because these investigators proceeded from different research traditions, studied different types of groups ... and, apparently, followed independent lines of design and analysis" (Foa, 1961, p. 341). With respect to order factors, "it seems that variables pertaining to a single act of interpersonal behavior tend to a circumplex order" (Foa, 1961, p. 346). With respect to common factors, he concluded that interpersonal behavior can be described in terms of their loadings on two major dimensions: Dominance - Submission and Love - Hostility. Subsequent reviews (Berzins, 1977; Carson, 1969; Wiggins, 1982), have consistently reached the same conclusion.

In addition to providing a framework for operationally defining interpersonal

behavior and interpersonal style, the Leary System also attempted to address the construct of complementarity. Leary's Principle of Interpersonal Relations represented a more precise restatement of Sullivan's Theorem of Reciprocal Emotion. The principle states that "interpersonal reflexes tend (with a probability significantly greater than chance) to initiate or invite reciprocal interpersonal responses from the other person in the interaction that lead to a repetition of the original reflex" (Leary, 1957, p. 159). Unfortunately, the processes of reciprocity were not well elucidated, the processes of nonreciprocity were ignored, and explicit rules of reciprocity were not provided.

Carson extended the Leary System by specifying explicit rules of complementarity and noncomplementarity that utilized the circular conceptualization of behavior. According to Carson (1969), "the purpose of interpersonal behavior, in terms of its security-maintenance functions, is to induce from the other person behavior that is complementary to the behavior proffered" (p. 112). Carson defined complementarity as an interaction that was both reciprocal on the dominance - submission axis (dominance induces submission and vice versa) and corresponding on the love - hate axis (love induces love, and hate induces hate). A noncomplementary interaction was defined as being either reciprocal or corresponding, but not both. Carson also identified an anticomplementary interaction; an interaction that is neither reciprocal or corresponding.

Kiesler (1983) further extended Carson's rules of complementarity by providing more specificity. It should be noted that Kiesler's rules of complementarity were developed as part of his revised interpersonal circle. The substance of Kiesler's revised circle will be discussed in a later section. Referring to the dominance - submission axis as Control and the love - hate dimension as Affiliation, Kiesler (1983) identifies the following rules of complementarity:

For interpersonal behavior as operationalized by the two-dimensional interpersonal behavior circle: (a) Complementarity exists among interactants when Respondent B reacts to Person A with interpersonal acts reciprocal in terms of Control and corresponding in terms of

Affiliation; (b) anticomplementarity exists when Respondent B reacts to Person A with behavior both nonreciprocal in terms of Control and noncorresponding in terms of Affiliation; (c) acomplementarity exists among interactants when Respondent B reacts to Person A with actions either reciprocal on Control or corresponding on Affiliation, but not both; (d) isomorphic acomplementarity exists when Respondent B reacts from circle segments identical to those used by Person A; and (e) semimorphic acomplementarity exists when Respondent B reacts from circle segments directly opposite to those used by Person A. (p. 202)

The models developed by Carson and Kiesler also used specific pairings of behavior on the interpersonal circle to identify varying degrees of complementarity.

In addition to specifying rules of complementarity, Kiesler identifies a covert process that he believes mediates complementarity. According to Kiesler, in any interaction, Person A tends to pull from Respondent B a response that confirms Person A's self definition. Respondent B experiences the pull as an "impact message". The impact message is defined as "the particular complex of covert, internal engagements (feelings, cognitions, fantasies) an interactant recurrently experiences as the direct effect of a person's interpersonal behavior" (Kiesler, 1983, p. 201). The covert message is experienced internally and acts to mediate the subsequent overt complementary response. By using the interpersonal circle to classify impact messages, it becomes possible to operationalize Sullivan's concept of empathy. It is also apparent how classifying impact messages provides a method of operationally defining interpersonal impact.

Carson and Kiesler base complementarity on the principles of reciprocity on the dominance dimension and correspondence on the affiliation dimension. Wiggins (1982) bases complementarity on a different theoretical principle: the analysis of the underlying facet structure (Foa & Foa, 1974). Using a facet analysis, any interpersonal situation can be defined according to the granting or denial of status and love for both

interactants. Complementarity is achieved when both interactants agree on the same definition of the interpersonal situation. For example, a behavior defined as ambitious-dominant would define a situation in which love and status are granted to the actor but only love is granted to the other. A complementary response would be one in which the other granted love and status to the actor but only love to himself. Different levels of complementarity and noncomplementarity would be determined by assessing the extent to which the interactants agree in their definition of the situation.

Wiggins' model generates predictions about circle segment pairings that define complementary and noncomplementary which are different than the predictions which follow from the models of Carson and Kiesler. Orford (1986) reviewed the research on interpersonal complementarity in order to determine which, if any, of the models received empirical support. Orford's conclusions are based on the prevalence with which predicted interpersonal matches were confirmed in studies assessing complementarity. He concluded that the "predictive ability of Wiggins' (1982) theory is scarcely greater than chance level, and his theory can probably be safely dismissed" (Orford, 1986, p. 374). Orford also concluded that the complementary relationships (as defined by Kiesler) were far more common than anticomplementary relations (again, as defined by Kiesler), "hence confirming Kiesler's model in general terms" (Orford, 1986, p. 376). Nonetheless, Orford noted that there were significant inconsistencies between the empirical findings and Kiesler's predictions: the complementary matches occurred more frequently than predicted and the prediction that hostile-dominance would pull for hostile-submission occurred less often than it should. In conclusion, the empirical data provide some support for Kiesler's model of complementarity, particularly with respect to the prevalence of complementary and anticomplementary relationships.

As noted above, Kiesler's model is able to relate different behavioral pairings on the interpersonal circle to different degrees of complementarity. Once complementarity is quantified, it becomes possible to test predictions made about the relationship between complementarity and anxiety. According to Sullivan's theory, relationships

characterized by noncomplementarity would eventually dissolve because they would be disconfirming to the self-systems of the participants. Relationships which continue despite noncomplementarity would arouse anxiety in the interactants because of the disconfirmation. The subsequent anxiety, being interpersonal in origin, would fit the definition of relationship-anxiety. It follows that as complementarity in an ongoing relationship decreases, the experience of relationship-anxiety would increase. The quantification of complementarity allows this prediction to be investigated.

To summarize, the Leary System characterized the universe of interpersonal variables as consisting of 16 categories arranged in a circular ordering along two orthogonal dimensions: dominance - submission; love - hate. The circular ordering provided a conceptual arrangement of interpersonal variables that could be visually depicted as an interpersonal circle. Measurement instruments designed to assess variables classified by an interpersonal circle have been used to operationalize the constructs of interpersonal reflex (or behavior) and interpersonal trait (or self-dynamism). There was ample empirical evidence indicating that the interpersonal circle provided a valid conceptualization of the universe of interpersonal variables. Several theorists have developed models of complementarity. Current empirical evidence favored the model developed by Kiesler. Kiesler's circular conceptualization of behavior also provides a method for operationally defining interpersonal impact. Kiesler's model of complementarity was also used to venture into a secondary avenue of investigation in the current study, i.e., exploring the association between the constructs of relationship-anxiety and complementarity.

In conclusion, the circular conceptualization of behavior has provided a means of operationally defining all but one of the constructs stated at that outset as being crucial to the study of parallel process. It is not yet clear if relationship-anxiety can be adequately operationalized by a circular conceptualization of behavior. It has been proposed that as complementarity decreases in an ongoing relationship the experience of relationship-anxiety should increase. If it can be demonstrated that relationship-anxiety

is associated with complementarity, future studies may be able to use a measure of complementarity to operationally define relationship-anxiety.

Circumplex Models

Assessment instruments which measure variables classified by an interpersonal circle will subsequently be referred to as circumplex measurements. A system which combines a particular circumplex instrument with a particular interpersonal circle will be referred to as a circumplex model. Circumplex models represent a particular approach to measuring and describing interpersonal variables. The Leary System is an example of a circumplex model.

Since 1957, when Leary first presented his interpersonal system, a number of circumplex models have been developed. Some of these models have focused on interpersonal variables which have specific applications unrelated to the current investigation (Chance, 1959; Shaeffer, 1957). Benjamin (1979) developed a circumplex model that attempted to reconcile the divergent views of Shaeffer (1959) and Leary (1957). Her model utilized a three-dimensional circumplex structure. Though the Benjamin model is clinically rich, it is difficult, if not impossible, to validate the assumptions which underlie the three-dimensional structure (Wiggins, 1982). Most of the more recent models represent attempts to refine Leary's original model.

As one of the final steps in the development of a research framework for investigating parallel process, the circumplex models which are relevant to the study of parallel process will be reviewed. Prior to reviewing the circumplex models, pertinent conceptual issues will be discussed. Next, the psychometric requirements of the study will be identified. The requirements will then be transformed into criteria that can be used to choose the model or models that are most appropriate for use in the investigation of parallel process.

Parallel process has been defined as a mirroring across two concurrent relationships of interpersonal behaviors and/or their impacts. Thus, the investigation of parallel process will require operational definitions of the constructs of interpersonal

behavior and interpersonal impact. In the current study, interpersonal impact will refer to the "pull" created in a respondent as a consequence of a target subject's behavior. Earlier, it was noted that Kiesler has defined the interpersonal "pull" as an impact message. Thus, an interpersonal circle that classifies impact messages can be used to operationally define interpersonal impact. Interpersonal behavior will be defined as an observable, momentary interpersonal process, and will be operationally defined by having an observer use an appropriate circumplex instrument to assess a target subject's behavior.

As the following conceptualization of parallel process demonstrates, the instrument used to operationalize interpersonal behavior will need to be sensitive to the differences between interpersonal behavior and interpersonal style. In parallel process, one of the interactants (the subject) is exhibiting behavior which is consistent with his or her interpersonal style. The other interactant (the respondent) is "pulled" to exhibit a complementary response. The complementary response is not necessarily consistent with the interpersonal style of the respondent. The respondent then acts out the subject's interpersonal behavior in the corresponding parallel process relationship; again, the acted out behavior is not necessarily consistent with the respondent's interpersonal style. Thus, a measurement instrument which is overly sensitive to the influence of interpersonal style might not be able to capture the parallel process.

Kiesler (1986) believes that a circumplex instrument which is anchored by specific, observable behaviors will be more sensitive to the presence of interpersonal behavior than an instrument based on single word adjective descriptors. Kiesler points out that the use of single word adjective descriptions produces a bias due to the presence of underlying semantic schemas. Since semantic schemas act as a kind of cognitive filter, adjective checklists tend to be connotative rather than denotative. Kiesler states that behaviorally based instruments are less likely to be biased by cognitive filtration, and therefore, are better able to discriminate between differences in immediate interpersonal processes. Thus, the current study will use a circumplex

instrument anchored by overt, observable behavior to operationalize interpersonal behavior.

In the preceding section, it was noted that if the degree of complementarity in an ongoing relationship could be quantified, it might be possible to demonstrate the presence of an inverse relationship between a measure of complementarity and a measure of relationship-anxiety. One method for assessing complementarity in an ongoing relationship would require that a number of repeated measures of complementarity be taken over some specified period of time. Unfortunately, a repeated measures design is not practical given the difficulty in obtaining an adequate subject pool.

It may be possible to assess complementarity in an ongoing relationship by obtaining a measure of complementarity associated with the interpersonal styles of the two interactants. If it assumed that a measure of interpersonal style represents a predisposition to exhibit a relatively restricted range of behavior, then a measure of interpersonal style may be thought of as a summary of interpersonal behavior over time. Based on the above premise, a noncomplementary match in the interpersonal styles between two interactants would indicate that over any specified period of time many of the displayed interpersonal behaviors would also be noncomplementary. If interpersonal style is conceptualized as a summary of interpersonal behavior over time, then a measure of complementarity associated with the interpersonal styles of two interactants would also provide a measure of complementarity in their ongoing relationship and could be used to study the relationship between complementarity and relationship-anxiety.

The preceding discussion indicates that in the current study it will be necessary to operationally define interpersonal style in addition to interpersonal behavior. The Leary System used the method of assessment to operationally distinguish between interpersonal style and interpersonal behavior, i.e., observer ratings were used to operationalize interpersonal behavior and a self report was used to operationalize interpersonal style.

The current study will follow the Leary tradition. Interpersonal style will be defined as the preferential use of a relatively restricted class of behaviors and will be operationalized by a subject's self report on an appropriate circumplex instrument. Since the instructional set of the self report is the major factor in operationalizing interpersonal style, the circumplex instrument used may be anchored by either overt behaviors or adjective descriptors.

Implicit in the preceding discussion are a number of criteria by which the appropriate circumplex model or models can be chosen. In addition to possessing adequate reliability and validity, the model should be able to detect the full range of interpersonal behaviors, interpersonal styles, and interpersonal impacts. The ability to be sensitive to the full range of these specified interpersonal variables will require a model which exhibits superior circumplex properties because deviation from circular ordering implies gaps in the universe of interpersonal variables. Thus, a model with poor circumplex properties will be insensitive to those variables associated with the gaps in the circumplex.

The circumplex model used to determine complementarity must be consistent with the model of complementarity proposed by Kiesler (1983). In order for it to be consistent with Kiesler's model, the chosen circumplex model will need to exhibit a circular arrangement of categories which conforms to Kiesler's interpersonal circle. Absence of an appropriate circular arrangement will result in an inability of the circumplex instrument to yield Kiesler's predictions of complementarity. For example, Kiesler predicts that segment "C" (mistrust) is complementary with segment "G" (inhibited). If another circumplex instrument is to be able to yield the same prediction, it must have a circular arrangement of categories in which segment "C" is labeled mistrust and segment "G" is labeled inhibited. The same argument applies at the quadrant level.

Underlying the Leary System is a two-dimensional structure of interpersonal behavior: Dominance - Submission; Love - Hate. Though Lorr and McNair (1965) point

out that circumplex ordering is not a function of the number of dimensions, complementarity requires that the interpersonal categories of the circumplex reflect bipolar constructs which are dependent upon the presence of a two-dimensional structure. Consequently, the current study will utilize a circumplex model that has a two-dimensional structure which is isomorphic to the structure underlying the Leary System.

To summarize, there are six criteria with which circumplex models can be evaluated: reliability, validity, ability to operationalize key interpersonal variables, adequacy of the circumplex structure, appropriate circular arrangement of categories on the interpersonal circle, and the presence of an underlying two-dimensional structure. Using the specified criteria, five circumplex models will be reviewed in order to determine their appropriateness for use in a study of parallel process.

There are a number of deficiencies in the circumplex model developed by Leary and his associates. As noted previously, Foa (1961) discovered deviations in the circular ordering yielded by the ICL. The deviations were caused by the presence of gaps in the upper-right and lower-left quadrants of the circumplex (Lorr & McNair, 1965; Stern, 1970; Wiggins, 1979). Wiggins (1979) also noted "a decided lack of bipolarity between (segments) that appeared opposite each other on the circle" (p. 401). He speculated that the gaps in the circumplex were the result of the lack of bipolarity between the interpersonal categories. The models which follow were developed in order to improve upon the Leary System.

Lorr and McNair (1963, 1965) developed the first classification system of interpersonal variables that was based on manifest behaviors: the Interpersonal Behavior Inventory (IBI). The circumplex developed by Lorr and McNair was based on an underlying three-dimensional structure: Control; Dependency; Affiliation versus Detachment. Despite several revisions, the IBI was only able to identify fifteen interpersonal categories. Though the IBI appears to have an adequate circumplex structure (Lorr & McNair, 1965; Wiggins, 1982), its inability to detect sixteen categories and its use of a three-dimensional structure undermine the IBI's utility in investigating

parallel process.

The Impact Message Inventory (IMI) developed by Kiesler (1976) is unique among the circumplex models. It is the only circumplex model which focuses on the variable of interpersonal impact. The IMI codifies a class of variables referred to as impact messages. The respondent completes a self report anchored in the internal, covert impact evoked in the respondent by a target subject. To the extent that covert impacts are being paralleled across the relationship prior to the development of an overt parallel process, the IMI may be the most sensitive of all the circumplex measures to the developing parallel process. Unfortunately, the IMI categories were anchored to the categories of the IBI. As a consequence, the IMI shares many of the same deficits as the IBI. Additionally, the circumplex properties of the IMI are not as good as those displayed by the IBI (Perkins, Kiesler, Anchin, Chirico, Kyle, & Federman, 1979). Several studies have indicated that the IMI is limited to the reliable assessment of circle quadrants (Perkins, et al, 1979; Wiggins, 1982; Kiesler, 1986). In conclusion, though the IMI is the only instrument expressly designed to assess interpersonal impact, the psychometric limitations of the IMI undermine its utility in the current study.

Wiggins (1979) developed a taxonomy of interpersonal traits referred to as the Interpersonal Adjective Scale (IAS). Initially, Wiggins anchored trait descriptive adjectives to the interpersonal categories of the Leary System. He succeeded in replicating the Leary System, albeit with the same flaws as the Leary System. Wiggins decided that the flaws of the Leary System were predominately due to its lack of bipolarity. Therefore, he developed a sixteen category circumplex that was based on eight bipolar dimensions. The trait descriptive adjectives were then distributed into the categories formed by the eight bipolar dimensions.

The revised version of the IAS was tested in a series of cross-validation studies. The findings indicated that the IAS was generalizable across a variety of populations (Wiggins, 1982). Noting that any circumplex model yields at best a quasi-circumplex structure, Wiggins concluded that "the quasi-circumplex structures (yielded in the four

generalizability studies) are among the clearest reported in the personality literature to date" (Ibid, p. 407).

The IAS was validated in a self report format and is anchored by adjective descriptors. The rating format and the use of single word adjective descriptions make the IAS most appropriate for use in assessing interpersonal style.

Though Wiggins has developed a theory of complementarity which is significantly different than Kiesler's, the theoretical differences are unimportant as long as the circular arrangement of categories in Wiggins' circumplex is congruent with Kiesler's interpersonal circle. Unfortunately, there are differences between the models in the placement of categories. In addition, there are differences in the manner by which the two models collapse sixteenths into octants and quadrants. Thus, though the IAS appears to be well suited to the assessment of interpersonal style, its incompatibility with Kiesler's model of complementarity rules out its use in the current study.

In 1982, Kiesler developed a new interpersonal circle which was intended to integrate and expand upon the four models discussed above. Kiesler used the IAS as an initial marker for the categories of the interpersonal circle. Similar to Wiggins, Kiesler defined his categories in a way that created behavioral and semantic bipolarities. Kiesler's interpersonal circle also incorporates two levels of intensity with respect to the expression of interpersonal behavior. Kiesler's model of complementarity was derived from his new interpersonal circle.

The items used to define the categories of the interpersonal circle were latter incorporated into assessment instruments designed to operationalize the interpersonal circle: the Checklist of Interpersonal Transactions (CLOIT) and the Checklist of Psychotherapy Transactions (CLOPT). The CLOIT and the CLOPT are equivalent instruments designed for different interpersonal settings. Since the CLOIT is more generalizable, it will be the focus of subsequent discussion.

The CLOIT items are in the form of unambiguous adjective and verb phrases. The phrases are characterized by specific, observable, behavioral descriptions and were

designed to be used in an observer rating format. Both the rating format and the use of behavioral descriptions make the CLOIT appropriate for the assessment of interpersonal behavior.

The CLOIT is a relatively new instrument and studies assessing its psychometric properties are limited. Kiesler (1986) reports that interjudge reliability is moderate to high. Additionally, he claims that internal consistency is moderate to moderately high for all sixteen scales -- a finding Kiesler believes is impressive given that other measures report only octant coefficients. Weinstock-Savoy (1986) reports that the CLOPT had an underlying circumplex structure but conclude that the circumplex structure of the IAS is better.

Though the IAS has a superior circumplex structure, the CLOIT has properties which make it advantageous for use in the current study. The CLOIT is the only circumplex instrument developed specifically to describe the kinds of transactions that characterize psychotherapy (Kiesler, 1986). In addition, the CLOIT is based on specific, observable behaviors, and therefore, is particularly sensitive to differences in immediate interpersonal behavior.

Recently, Carson (1986) has reported using the CLOIT in a self report format. Preliminary findings indicated that the factor structure of the CLOIT was not adversely effected by the self report format. Though there is limited psychometric data available concerning its use, the self report version of the CLOIT is currently the only instrument appropriate for use in determining complementarity in the current study.

To summarize, interpersonal impact was defined as the "pull" created in a respondent as a consequence of a target subject's behavior. Though the IMI was designed specifically to operationalize interpersonal impact, it had too many psychometric limitations for use in the current study. Interpersonal behavior was defined as an observable, momentary, interpersonal process, and was operationalized by having an observer use a circumplex instrument anchored by overt behaviors to rate a target subject's actions. A review of the available measures indicated that the CLOIT

was the most appropriate assessment tool for use in operationalizing interpersonal behavior. It was noted that in order to investigate the relationship between the constructs of complementarity and relationship-anxiety, it would be necessary to determine the degree of complementarity in an ongoing relationship. Determining the degree of complementarity in an ongoing relationship required the development of an operational definition of interpersonal style. Interpersonal style was defined as the preferential use over time of a relatively restricted class of behaviors and was operationalized by a subject's self report on an appropriate circumplex instrument. Again, a review of the measures indicated the a self report version of the CLOIT was the best available instrument for use in operationalizing interpersonal style. The final step in the development of a research methodology for investigating parallel process parallel process requires the development of an operational definition of relationship-anxiety.

Operationalizing Relationship-anxiety

The current study defines relationship-anxiety as the subjective discomfort experienced as a consequence of the therapy or supervision relationship. Anxiety experienced during the therapy or supervision session that is unrelated to the therapy or supervision interaction would not be identified as relationship-anxiety. Therefore, operationalizing relationship-anxiety requires the use of measure which can distinguish between anxiety that is interpersonal in origin and anxiety which originates from an intrapersonal source.

The delineation between interpersonal and intrapersonal anxiety can be compared to Spielberger's distinction between state and trait anxiety. Spielberger (1983) defines state anxiety as an emotional state characterized by subjective feelings of tension, apprehension, nervousness, and worry which a person experiences in response to certain specific conditions. Trait anxiety is defined as the relatively enduring differences between people in their tendency to experience state anxiety, i.e., anxiety proneness. Anxiety stemming from an intrapersonal source relates most closely to the construct of

trait anxiety. Each member of the therapy - supervision triad brings to the relationships different levels of trait anxiety. Relationship-anxiety refers to the degree of state anxiety each triad member experiences in response to a specific targeted session. Thus, a measure of state anxiety which assesses the degree of discomfort experienced in response to the therapy or supervision interaction can be used to operationalize relationship-anxiety.

The State-Trait Anxiety Inventory (STAI) developed by Spielberger (1983) offers a means of operationalizing relationship-anxiety. The STAI includes a S-Anxiety scale which is comprised of 20 items designed to evaluate how a respondent feels at a given moment in time. The manual for the STAI notes that the "instructions for the S-Anxiety scale may be modified to evaluate the intensity of the S-Anxiety for any situation or time ... of interest" (Spielberger, 1983, p.3). Thus, the S-Anxiety scale of the STAI, when used with an instructional set focused on targeted therapy and supervision sessions, can be used to operationalize the construct of relationship-anxiety.

Hypotheses

1. Parallel process is a phenomenon which occurs with sufficient prevalence that a correlation between therapists' ratings of the interpersonal behavior manifested by patients during a targeted therapy session and supervisors' ratings of the interpersonal behavior manifested by therapists during the subsequent supervision session will be significant.
2. The occurrence of parallel process is positively associated with the level of relationship-anxiety. It is predicted that the occurrence of parallel process will increase as the experience of relationship-anxiety increases.
3. There is an inverse relationship between the degree of complementarity in the therapy or supervision relationship and the degree of relationship-anxiety experienced within those relationships. It is predicted that as the degree of complementarity decreases, the probability of parallel process occurrence will increase.

CHAPTER TWO

METHOD

Subjects

The subjects consisted of thirty triads; each triad included a patient, a therapist, and a supervisor. Subjects were recruited from sites in the Virginia, Washington, D.C., and Maryland areas. Recruitment efforts focused on sites providing training for psychotherapy. Once permission from a potential site had been obtained, the initial recruitment contact was made with the therapist. The therapist then had the responsibility for selecting a supervisor to participate in the research project; the therapist-supervisor dyad together selected the patient to complete the triad. The therapist coordinated the data collection procedures and was paid \$50.00 for participating in the study. The remaining members of the triad participated on an unpaid, volunteer basis.

Consistent with the validation requirements of the instruments used in the study, the patients were at least eighteen years of age, able to appropriately and actively engage in therapy, had the capacity to understand the requirements of the study, and were able to read. The average patient age was 33. Patient's in the study received the following diagnoses: five received a diagnosis of no disorder or diagnosis deferred, six patients were diagnosed as adjustment disorder, there were six anxiety disorders, five patients received a diagnosis of dysthymic disorder, five patients had a major affective disorder, and one patient was diagnosed with schizophrenia. Nine patients received an Axis II diagnosis, five of whom were labeled Borderline Personality Disorder.

The therapists were receiving regular, ongoing supervision in psychotherapy. Additional therapists' characteristics were as follows: The therapists had an average of

six years of experience. The therapist's average age was 35. Three of the therapists considered themselves to be systemic in their therapy orientation. Four therapists identified themselves as cognitive or cognitive behavioral. The psychodynamic orientation was utilized by 11 therapists. Two of the therapist were primarily humanistic. The remaining therapists labeled themselves as eclectic.

Supervisors were all licensed practitioners. The average age of the supervisors was 40. The supervisor therapy orientations were as follows: Nine supervisors identified themselves as using a psychodynamic orientation. Five of the supervisors labeled themselves systemic, and five as cognitive. The remaining supervisors were affiliated with a variety of eclectic orientations. Two supervisors appeared in more than a single triad.

The study was approved by the Human Subjects Committee at the College of William and Mary. It was also approved by all other sites that agreed to participate in the study.

Instruments

Several instruments were used in the study: two versions of the Checklist of Interpersonal Transactions (CLOIT), the S-Anxiety scale of the State-Trait Anxiety Inventory (STAI), and the Marlowe-Crowne Social Desirability Scale.

CLOIT; Observer-Rated Version: The observer-rated CLOIT is a 96 item checklist that allows observers to rate the interpersonal behavior of target persons on dimensions corresponding to the 16 categories of Kiesler's 1982 Interpersonal Circle. The individual completing the CLOIT is requested to assess the presence or absence of an item in a target person's actions.

Each of the 16 categories of the interpersonal circle is measured by 6 checklist items on the CLOIT. Three of the items represent behaviors manifesting a mild-moderate level of behavioral intensity and receive a score of 1 when checked; the remaining items correspond to an extreme level of intensity and receive a score of 2 when checked. Items not checked are scored with a zero.

In order to keep the focus on immediate processes occurring during the targeted session, slight modifications were made to the original CLOIT instructions. Additionally, the phrases in the body of the CLOIT appeared in past tense.

Kiesler provides a scoring sheet for the CLOIT which transforms the checklist into summary scores for each of the 16 interpersonal categories. There is also a procedure for transforming the scores on the 16 circle segments into quadrant scores. In the current study, interpersonal behavior was operationalized by the subject's scores in the 16 circle segments or 4 circle quadrants.

Kiesler (1987) made minor revisions to the CLOIT in an effort to improve the psychometric and circumplex properties. Since the revisions are so recent, the following review of CLOIT psychometric properties are based on the original versions of the CLOIT.

The CLOIT/CLOPT are relatively new instruments and information concerning their psychometric properties is limited. Using 3 different methods, Weinstock-Savoy (1986) computed interjudge reliability scores on the CLOPT. Mean r values ranged from .69 to .82 for the three methods. Kiesler, Paddock, Goldstein, and VanDenBerg (1986) reported moderate to moderately high levels of internal consistency for the CLOIT (median Cronbach alpha coefficient = .63). Intercorrelation matrices formed by the CLOPT octant scores indicated that "for the most part the octant scores conformed to a pattern consistent with an underlying circumplex structure" (Weinstock-Savoy, 1986, p. 95). The Weinstock-Savoy study also investigated concurrent validity for the CLOPT by comparing it to the Interpersonal Adjective Scale (IAS). Weinstock-Savoy concluded that "the IAS and CLOPT displayed a high but not complete degree of overlap" (p.136).

CLOIT; Self-Rated Version: Kiesler (1984) has also developed a self-rated version of the CLOIT. The item content between the two instruments is essentially identical although some changes have been made in the phrasing as part of the transformation to a self report format (e.g., "suggests topics or issues..." has been altered to read "I suggest topics or issues..."). Subjects completing the self-rated CLOIT are

asked if the items are typical of behaviors they normally exhibit in interactions with others.

The scoring procedures for the self-rated version of the CLOIT are the same as the procedures for the observer-rated version described above. The obtained scores in the 16 circle segments were used to operationalize interpersonal style.

In the only reported study in which the self-rated version of the CLOIT has been utilized, the findings indicate that an adequate circumplex structure can be obtained using the self report format (Carson, 1986).

The degree of complementarity within the therapy relationship was quantified by computing a Pearson product-moment correlation coefficient between the patient's scores in each of the 16 self-report CLOIT categories and the therapist's scores in the predicted complementary categories. For example, the patient's score in category "A" was correlated to the therapist's score in the predicted complementary category "I". A similar procedure was used to quantify the degree of complementarity in the supervision relationship. The higher the r value, the more perfect the degree of complementarity in the therapy or supervision relationship.

STAI; S-Anxiety Scale: The STAI was developed by Spielberger (1983) to provide quantitative measurements of state and trait anxiety. In the current study, scores on the STAI were used to operationalize the construct of relationship-anxiety.

The S-Anxiety scale consists of 20 items designed to assess the level of state anxiety that exists at a particular moment in time. The instructional set of the S-Anxiety can be modified to evaluate the intensity of state anxiety that exists in response to a particular situation. In the current study, modifications were made to the S-Anxiety scale instructions in order to keep the focus on the anxiety specific to the relationships experienced during the targeted therapy and supervision sessions.

S-Anxiety items are rated on a one to four likert scale. For 10 of the items, a score of "4" indicates the presence of high anxiety; for the remaining items, a score of "4" indicates the absence of anxiety. The scoring key reverses the direction of nonanxiety

items so that a high score on the S-Anxiety scale indicates the presence of a high degree of state anxiety. The S-Anxiety score can range from 20 to 80.

The STAI manual reviews a number of studies assessing the psychometric properties of the instrument. Test-retest coefficients were relatively low as would be expected for a measure assessing changes in situational stress. Spielberger (1983) reports that internal consistency coefficients were very high (median alpha coefficients equal to .92). Validity for the S-Anxiety scale is typically evaluated by administering the scale under a normal or non-stressful condition and then a high stress condition. Spielberger (1983) cites a number of studies in which the state anxiety scores increased significantly under the high stress condition. Spielberger also noted that the scores for military recruits, tested shortly after they began a highly stressful training program, were much higher than scores obtained by students with similar psychometric characteristics. In addition, the state anxiety scores obtained by the military recruits were much higher than their trait anxiety scores. In summarizing the vast research done with the STAI, Katkin concluded that it was "an excellent choice ... for the researcher looking for an easy-to-administer, easy-to-score, reliable and valid index of ... individual differences in transitory experiences of anxiety" (in Buros, 1977, p. 1096).

Marlowe-Crowne: Scores on the Marlowe-Crowne were used to provide statistical control of bias due to social desirability responding (Crowne and Marlowe, 1964). The Marlowe-Crowne consists of 33 items representing two types of responses. In the first type, the keyed response is socially desirable but highly unlikely to occur (e.g., "I always practice what I preach"). The second type of response consists of items in which the keyed response is a socially undesirable characteristic but very likely to occur (e.g., "I like to gossip"). The Marlowe-Crowne consists of two categories of items -- those in which a socially desirable characteristic is attributed to the self, and those in which socially undesirable characteristics are denied. The higher the score, the more the subject is trying to present him/herself in a socially desirable manner.

Crowne and Marlowe (1964) reported a test-retest correlation of .88 and an

internal consistency coefficient of .88 for the final form of the scale. According to Miller and Jacobson (in London and Exner, 1978), there is no evidence that Marlowe-Crowne scores are biased by any yea-saying response tendency or that the Marlowe-Crowne scores are related to acquiescence measures when the social desirability of the acquiescence items are controlled.

Procedure

The Human Subjects Committee (or other appropriate persons) at each study site was contacted in order to receive formal permission to collect data. Once permission was granted, therapists were recruited to participate in the study. Interested therapists received an envelope labeled "Triad Materials". Affixed to the Triad Materials envelope was a smaller envelope labeled "Read Me First". Inside the Read Me First envelope was a "Therapist Information Letter". The Therapist Information Letter explained the general requirements of the study and directed the therapist who wished to participate to an envelope marked "Therapist Instructions" (which was inside the Therapist Materials envelope).

In addition to the Therapist Instructions, the Therapist Materials envelope contained envelopes labeled "Therapist 1", "Therapist 2", "Therapist 3", and "Client 2". The Therapist Instructions envelope contained a research timetable. The timetable consisted of a sequence of eight steps. Step one instructed the therapist to sign the informed consent form. Step two requested that the therapist complete the questionnaires in the envelope marked "Therapist 1" within seven days. Step three provided specific procedures for recruiting a supervisor to participate in the study. Step four provided procedures for recruiting a patient to participate in the study. Step five instructed the therapist on how to identify a targeted therapist session and a targeted supervision session. Step six directed the therapist to provide the patient with the "Client 2" envelope at the close of the targeted therapy session and to allow the patient time to complete the enclosed questionnaires. The therapist was also instructed to complete the questionnaires in the "Therapist 2" envelope. Step seven requested that

the therapist complete the questionnaires in the envelope marked "Therapist 3" at the close of the targeted supervision session. The last step directed the therapist to collect the questionnaires completed by the supervisor.

The therapist recruited a supervisor to participate in the study in accordance with procedures provided in Step four above. The supervisor then received an envelope labeled "Supervisor Materials". The Supervisor Materials included a set of "Supervisor Instructions" and envelopes marked "Supervisor 1" and "Supervisor 2". The Supervisor Instructions consisted of a sequence of six steps that paralleled the instructions provided to the therapist.

As noted above, the therapist was also provided with instructions on how to recruit a patient to participate in the study. The patient received an envelope labeled "Client Materials" which contained "Client Instructions" and another envelope labeled "Client 1". The Client Instructions provided a sequence of two steps similar to the instructions provided to the therapist and the supervisor.

All of the envelopes described above had instructions affixed to the outside. The instructions identified the contents and explained how the contents were to be used.

Following is a summary of the procedural steps that occurred during the study.

Within a week of receiving the study materials, each subject in the triad completed a self report version of the CLOIT and the Marlowe-Crowne scale. The results of the self reports were used to determine complementarity scores for both the therapy and supervision relationships.

At the close of the targeted therapy session, the patient and the therapist completed the S-Anxiety scale of the STAI. The therapist also used the CLOIT to rate the interpersonal behavior manifested by the patient during the targeted therapy session.

The patient rated by the therapist was the focus of the subsequent supervision session. At the close of the targeted supervision session, the therapist and supervisor completed the S-Anxiety scale of the STAI. In addition, the supervisor used the CLOIT to rate the interpersonal behavior manifested by the therapist during the targeted

supervision session.

Statistical Procedures

Pearsons' product-moment correlations were computed between the Marlowe-Crowne and the S-Anxiety scores and between the Marlowe-Crowne and the complementarity scores. If significant correlations were obtained between the Marlowe-Crowne and any of the self-report measures, the Marlowe-Crowne was used to statistically control for the effects of bias.

In each triad, a Pearson product-moment correlation coefficient was computed between the CLOIT scores derived from the therapist's rating of the behavior manifested by the patient during the targeted therapy session and the CLOIT scores derived from the supervisor's rating of the behavior manifested by the supervisee during the targeted supervision session. The Fisher's z -transformation was used to convert the obtained r values to z scores. A single sample t -test comparing the mean z score value to zero was then computed. Obtaining a mean z score value that is significantly different than zero would indicate that the therapist's behavior during the supervision session was similar to the patient's behavior during the therapy -- a finding suggestive of parallel process.

Searles (1955) and Doehrman (1971) have suggested that parallel process may be manifested by a mirroring of opposite behaviors instead of similar behaviors. In this instance, the supervisee's behavior during supervision would be exactly the opposite of the patient's behavior during the therapy.

The following procedure was used to test for a paralleling of opposite behaviors. A Pearson product-moment correlation coefficient was computed between the CLOIT scores derived from the therapist's rating of the behavior manifested by the patient during the targeted therapy session and the scores derived from the supervisor's rating, in the opposite CLOIT category, of the behavior manifested by the supervisee during the targeted supervision session. For example, the score received by the patient in category "A" would be correlated with score received by the therapist in the opposite category "I".

The obtained t values were converted to z scores using a Fisher's z -transformation. Again, a single sample t -test comparing the mean z score value to zero was computed. Obtaining a mean z score value that is significantly different than zero would indicate that the therapist's behavior during the supervision session was the opposite of the patient's behavior during the therapy -- a finding suggesting a paralleling of opposite behaviors.

There were two formulations used to explain parallel process. The predominant theoretical view described in the introduction was an analytic one. In the analytic formulation, parallel process is believed to be due to the experience of anxiety in the therapy or supervision relationship, i.e. relationship-anxiety. Alternatively, Ekstein and Wallerstein (1972) have hinted at a structural explanation. In the structural formulation, parallel process is due to the structural similarities between therapy and supervision. Each relationship is defined as a helper -- helpee relationship, in which behavior is determined by the role enactment of the interactant. Since both the patient and the supervisee are helpees, their behavior would be similar -- producing parallel process.

In order to confirm the analytic formulation, it would be necessary to demonstrate that relationship-anxiety is predictive of parallel process occurrence. A multiple regression analysis was used to investigate the relationship between parallel process occurrence and relationship-anxiety. Relationship-anxiety was operationalized by the S-Anxiety measures which were used as the predictor variables in the regression analysis. If social desirability bias was shown to be present, the Marlowe-Crowne was included as one of the predictor variables. The z scores associated with parallel process were used as the dependent variable in the regression analysis.

In order to confirm the structural explanation of parallel process, it would be necessary to demonstrate that all patients and supervisees are manifesting similar behaviors. A two-way analysis of variance with repeated measures was computed in order to assess the similarities and differences between the patients and supervisees. The group factor had two levels: patients and supervisees. The repeated measures factor

had four levels formed by the scores on the Observer-rated CLOIT quadrants -- hostile dominance, hostile submission, friendly dominance, friendly submission.

The structural explanation of parallel process will be confirmed if there is a significant main effect for quadrants with no interaction effect. This finding would indicate that the distribution of patient's scores in the quadrants was similar to the distribution of the supervisees' scores in the quadrants. It should be pointed out that a significant main effect for groups, by itself, would not confirm the structural explanation. One group could score significantly higher than the other group but still display a similar pattern of scores in the CLOIT quadrants.

An additional multiple regression analysis was done in order to investigate the relationship between parallel process occurrence and other potentially relevant variables. In this exploratory analysis, a number of specific relationship conditions, the years of experience obtained by the therapist, and the session number were used as predictor variables. The z scores associated with parallel process were used as the dependent variable in the analysis.

Correlational analyses were used to assess the relationship between relationship-anxiety and complementarity. If social desirability bias was present, the relationship between complementarity and relationship-anxiety was assessed by use of regression analyses with the Marlowe-Crowne used as a predictor variable. In the absence of bias, Pearsons' product-moment correlations were computed.

CHAPTER THREE

RESULTS

The results of the study will be presented in four sections. The first section will examine the findings associated with the occurrence of parallel process. The second section will review the results pertaining to the proposed relationship between complementarity and relationship-anxiety. Section three will focus on the findings associated with the relationship between anxiety and the occurrence of parallel process. Finally, the results relating to the structural explanation of parallel process will be reviewed. Table 1 summarizes the subjects' demographic characteristics for each triad.

Parallel Process Occurrence

In order to test for the presence of parallel process, a Pearson's product-moment correlation was computed in each triad. The correlation was formed by using the scores generated by the Observer-rated CLOIT completed by the therapist and pairing them with the scores generated by the Observer-rated CLOIT completed by the supervisor. The Fisher's z -transformation was used to convert the obtained r values to z scores. Twenty of the obtained r values were significant. Table 2 presents the r values and the z scores associated with the paralleling of similar behaviors.

The z scores from Table 2 were used to compute a single sample, one-tailed t -test. The finding of the t -test confirmed the presence of a significant relationship between the behaviors manifested by the patient during the targeted therapy session and the behaviors manifested by the supervisee during the targeted supervision session ($M = 0.48$, $t(29) = 2.63$, $p = .01$, one-tailed).

As noted in Chapter one, both Searles (1955) and Doehrman (1971) have suggested that, in some cases, opposite behaviors are paralleled across the therapy and

supervision relationships. In order to test this variant of the parallel process hypothesis, another Pearson's product-moment correlation was computed in each triad. The correlation assessing the paralleling of opposite behaviors was formed by using the scores generated by the Observer-rated CLOIT completed by the therapist and pairing them with the scores in the predicted opposite CLOIT category generated by the Observer-rated CLOIT completed by the supervisor. Again, the obtained r values were converted to z scores using a Fisher's z -transformation. Table 3 presents the r values and the z scores associated with the paralleling of opposite behaviors.

The mean z -value obtained in the paralleling of opposite behaviors was equal to -0.268. A one-tailed, single sample t -test comparing the mean z value to zero was not significant, $t(29) = -1.47$, $p = .08$, one-tailed. Although there was a tendency towards significance, it was not in the predicted direction.

The Relationship Between Complementarity and Relationship-anxiety

In Chapter one, complementarity was postulated to be inversely related to the experience of relationship-anxiety. The following paragraphs will report on results pertaining to the relationship between complementarity and relationship-anxiety.

The subject's scores on the S-Anxiety scale of the STAI were used to operationalize relationship-anxiety. Procedures developed by Kiesler (1988) were used to operationalize complementarity scores. The complementarity scores (in the form of z scores) and associated r values for each triad are presented in Table 4.

Since the subjects' S-Anxiety scores and the complementarity scores were derived from self-report data, they were correlated with the Marlowe-Crowne scores in order to determine if they were influenced by social desirability bias. The results of these correlations are presented in Table 5. A significant correlation was found between the supervisees' Marlowe-Crowne scores and the supervision complementarity scores, $r(28) = -.41$, $p = .02$, one-tailed. Therefore, the supervisees' Marlowe-Crowne scores were used as a statistical control for social desirability bias in procedures involving the

supervision complementarity score.

Descriptive statistics for the S-Anxiety measures and the complementarity scores are presented in Table 6. Based on single sample t -tests, the patient S-Anxiety scores were significantly higher than the normal population, $t(29) = 2.15$, $p = .03$. The scores for the other participants were significantly lower than the normal population, therapist: $t(29) = -2.23$, $p = .04$; supervisee: $t(29) = 2.63$, $p = .01$; supervisor: $t(29) = -5.31$, $p < .001$. Inspection of the variances derived from the S-Anxiety scores indicate that the variance associated with the Supervisors' S-Anxiety scores is notably smaller than the variances associated with the other S-Anxiety scores.

In the therapy relationship, the procedure for examining the relationship between complementarity and relationship-anxiety involved computing two correlations; one between the patient S-Anxiety scores and the therapy complementarity scores, and one between the therapist S-Anxiety scores and the therapy complementarity scores. The correlation between the patients' S-Anxiety scores and the therapy complementarity scores demonstrated a tendency towards significance, $r(28) = .30$, $p = .06$, one-tailed, but not in the predicted direction. The correlation between the S-Anxiety therapists' scores and the therapy complementarity scores was not significant, $r(28) = -.04$, $p = .41$, one-tailed.

In the supervision relationship, since the supervision complementarity scores were influenced by social desirability responding on the part of the supervisee, the procedure for examining the relationship between complementarity and relationship-anxiety required the use of regression analyses in which the supervisees' Marlowe-Crowne scores were the first listed predictor variable. There were two multiple regression analyses. In both analyses, the supervision complementarity scores were the second listed predictor variable. In the first analysis, the supervisor S-Anxiety scores were used as the dependent variable and in the second analysis the supervisee S-Anxiety scores were used as the dependent variable.

In the analysis using the supervisor S-Anxiety scores as the dependent variable,

the beta coefficient formed between the S-Anxiety scores and the supervision complementarity scores was significant, $\beta (25) = -.42$, $p = .02$, one-tailed. In the analysis using the supervisee S-Anxiety scores as the dependent variable, the beta coefficient formed between the S-Anxiety scores and the supervision complementarity scores was not significant, $\beta (25) = -.15$, $p = .22$, one-tailed.

The Relationship Between Anxiety and Parallel Process

The analytic formulation of parallel process identifies relationship-anxiety as being primarily responsible for the occurrence of parallel process. Searles (1955) also identified early stages of therapy and inexperienced therapists as elements that might facilitate parallel process occurrence. The following paragraphs will report on results pertaining to the relationship between parallel process and relationship-anxiety. The relationship between parallel process and other potentially relevant variables will also be presented.

A multiple regression analysis was computed in order to investigate the relationship between parallel process occurrence and relationship-anxiety. The S-Anxiety scores for the patients, the therapists, the supervisees, and the supervisors were used as the predictor variables in the regression analysis. The z scores associated with parallel process occurrence were used as the dependent variable in the regression analysis.

The regression analysis indicated that the combined contribution of the S-Anxiety scores for the participants of both relationships accounted for 11 percent of the variance in parallel process, which was not significant $R = .33$, $F (4,25) = 0.80$, $p = .54$. In addition, the beta coefficients formed between each of the participants' S-Anxiety scores and the z scores associated with parallel process occurrence were not significant. The beta coefficient for the patient's S-Anxiety score did demonstrate a tendency towards significance, $\beta (25) = -.31$, $p = .07$, one-tailed, although not in the predicted direction.

A second multiple regression analysis was computed in order to explore the relationship between parallel process occurrence and other potentially relevant variables.

The predictor variables used in the second regression analysis included the number of years of experience obtained by the therapist, the therapy session number, and four dichotomous variables defined by the presence or absence of specific relationship conditions as described below. Again, the z scores associated with parallel process were used as the dependent variable in the analysis.

The dichotomous variables in the regression analysis were dummy coded with a score of "1" or "0" in order to identify the presence or absence of specific relationship conditions. The following were the relationship conditions used in the regression analysis. The first condition was defined by the presence or absence of a match in gender within the therapy and supervision relationships. The next condition was defined by the presence or absence of a match in race. Inpatient vs. outpatient status was the next relationship condition. The last relationship condition was defined by the presence or absence of an Axis I diagnosis as the primary diagnosis.

The frequencies of occurrence of the dichotomous variables used in the second multiple regression were assessed. Variables whose occurrence were more one-sided than 80 percent vs. 20 percent were rejected for use in the regression analysis. Since the race matches did not meet this criterion, they were not included in the multiple regression analysis.

The results of the second multiple regression analysis indicated that the combined contributions of the predictor variables accounted for 4 percent of the variance in parallel process, which was not significant, $R = .22$, $F(4,25) = .31$, $p = .86$. Similarly, none of the beta coefficients formed between the predictor variables and the z scores associated with parallel process occurrence were significant.

The Structural Explanation of Parallel Process

As noted in Chapter two, Ekstein and Wallerstein (1972) identified structural similarities between therapy and supervision -- each being defined by a helper-helpee relationship. The structural similarity suggests an alternative to the analytic formulation of parallel process. Rather than being facilitated by anxiety, parallel process may result

from the similarity in the behavior being manifested by all helpees -- regardless of whether the helpees are patients or supervisees.

In order to test the structural explanation of parallel process a two-way analysis of variance with repeated measures was computed. The group factor had two levels: patients and supervisees. The repeated measures factor had four levels: hostile dominance; hostile submission; friendly dominance; friendly submission. The four levels were obtained by collapsing the scores generated by the patients and supervisees on the 16 Observer-rated CLOIT categories into quadrants. The cell means defined by the 2 X 4 matrix are presented in Table 7.

The results of the ANOVA indicated that patients had significantly higher scores than the supervisees, $F(1, 58) = 7.341, p = .009$. The findings also resulted in a significant main effect for the CLOIT quadrants, $F(3, 174) = 47.341, p < .001$. Tests for simple effects indicated that all subjects obtained higher scores on the friendly quadrants than they obtained on the hostile quadrants, Tukey's HSD critical difference = 2.43, $p < .05$. The interaction effect was not significant, $F(3, 174) = .63, p = .60$.

The cell means from the 2 X 4 matrix were used to plot the graph presented in Figure 1. An inspection of the graph provides visual evidence that all patients and all supervisees were similar in the scores they generated in each CLOIT quadrant, although the patient scores were consistently higher.

CHAPTER FOUR

DISCUSSION

The current study had three major goals. The first and most primary goal was to conduct an empirical investigation that might validate the parallel process phenomenon. The second goal was to identify conditions that tended to facilitate parallel process occurrence. In pursuing the second goal, it was hoped that the relative merits of the analytic and structural formulation of parallel process could be assessed. A final goal of the study was to investigate the relationship between complementarity and relationship-anxiety. The discussion of the findings will include sections relating to each of the goals stated above.

Discussion of the Findings

Occurrence of Parallel Process

The effort to validate parallel process occurrence was successful. Evidence of parallel process was found in 67 percent of the triads. Across all triads, 20 percent of the variation in patient behavior during the targeted therapy session could be accounted for by the variation in supervisee behavior during the targeted supervision session. In those triads in which parallel process was demonstrated, 25 percent of the variation in patient behavior could be explained by the variation in supervisee behavior.

The paralleling of opposite behaviors was not confirmed. Though the results displayed a tendency towards significance, it was not in the predicted direction. Given that the correlations were formed by pairing the patients' behaviors with the supervisees' behaviors in the predicted opposite CLOIT category, the negative correlation merely provides additional confirmation of a paralleling of similar behaviors.

The behavioral pairings used in testing for the paralleling of opposite behaviors

were derived from the circumplex structure of the CLOIT. Obtaining a negative correlation that displayed a tendency towards significance indicates that the behavioral pairings did reflect behavioral opposites. This finding supports the validity of the CLOIT's circumplex structure.

Conditions Facilitating Parallel Process Occurrence

The analytic formulation has been the major theoretical framework used to explain parallel process (Searles, 1955; Hora, 1957). In the analytic perspective, anxiety causes the therapist to unconsciously identify with the patient and then act out the identification in the supervision relationship. The unconscious identification and subsequent acting out is believed to produce parallel process. Searles (1955) also identified early stages of therapy and inexperienced therapists as contributors to the occurrence of parallel process.

The study did not provide support for the analytic formulation of parallel process. The relationship conditions, years of experience by the therapist and the session number all failed to demonstrate any relationship with parallel process occurrence. Of the measures of relationship-anxiety, the only variable demonstrating a tendency towards a significant relationship with parallel process occurrence was the patients' S-Anxiety scores. Interestingly, the relationship was not in the predicted direction; the level of parallel process occurrence tended to diminish as the patient S-Anxiety score increased. The negative relationship between relationship-anxiety and parallel process occurrence contradicts the analytic formulation, although it should be noted that the restricted range of the Supervisors' S-Anxiety scores undermines the ability to detect a significant relationship between supervisor anxiety and the occurrence of parallel process.

The low levels of relationship-anxiety experienced by the therapists, supervisees, and the supervisors may account for the failure of those variables to predict parallel process occurrence. Alternatively, it seems reasonable to expect that therapists, supervisees, and supervisors would experience relatively lower levels of relationship-anxiety, just as it seems reasonable to expect that patients would experience higher levels

of relationship-anxiety. The failure of anxiety to be significantly related to the occurrence of a parallel process is a major assault on the analytic formulation.

The structural formulation provides an alternative explanation of parallel process. In the structural formulation, it is noted that both the therapy and supervision relationships consist of a helper -- helpee structure. If the structure determines the behavior of the participants, then the behavior of all helpees, whether patients or supervisees, will be similar. If all patients and supervisees are behaving similarly, than parallel process is an inevitable occurrence.

In the analytic formulation, parallel process is an event that occurs within the triad, i.e. the behavior of the patient in triad one resembles the behavior of the supervisee in triad one but not necessarily the behavior of any other patient. In the structural formulation, parallel process is an event which occurs both within the triad and across the triads, i.e. the behavior of the patient in triad one resembles the behavior of the supervisee in triad one and the behavior of the patients in all other triads -- and the behavior of the supervisee in triad one resembles the behavior of the patient in triad one as well as the behavior of supervisees in all other triads.

If the structural formulation of parallel process is accurate, one would expect that the scores obtained by the patients would be similar to the scores obtained by the supervisees. The findings indicated that the patients obtained higher scores than did the supervisees -- a finding that is consistent with the structure of the CLOIT in which higher scores denote more intense expressions of behavior and a greater likelihood of pathology. But, key to the structural formulation, the pattern of scores across the quadrants was remarkably similar for both patients and supervisees. The parallel lines representing patients and supervisees in Figure 1 supports the structural explanation of parallel process.

The structural explanation of parallel process has the appeal of parsimony. Unlike the analytic formulation, the structural explanation does not depend upon the presence of unconscious processes. The structural formulation may also account for the

unexpected finding of a tendency for parallel process occurrence to decrease as the patient's experience of relationship-anxiety increases. The findings indicated that the behaviors of all subjects fell most often into the friendly quadrants of the CLOIT. It may be that as the patient becomes increasingly anxious he or she displays a shift away from the friendly quadrants, resulting in a diminished similarity between the patient and the other interactants in the triad.

The Relationship Between Complementarity and Relationship-Anxiety

The proposed inverse relationship between complementarity and relationship-anxiety received only limited support. The supportive evidence that did exist occurred in the supervision relationship -- where the levels of relationship-anxiety were quite low. In the therapy relationship, where the level of relationship-anxiety experienced by the patient was high, the inverse relationship between complementarity and relationship-anxiety was not supported. In fact, the relationship between complementarity and the patients' S-Anxiety scores displayed a tendency towards significance in a positive direction, contrary to prediction.

Relationship of the Present Study to Previous Research

Consistent with the findings of previous research (Doehrman, 1971; Clavere, 1982; Friedlander, Siegel, & Brenock, 1989), parallel process was shown to be a relatively prevalent phenomenon. Unlike previous research, the current study investigated many triads, included many different kinds of patients, and utilized therapists and supervisors with a range of theoretical orientations. Consequently the ability to generalize the findings to a broader population is much greater in the present study than was possible in previous research.

The present study also initiated an empirical investigation of the variables previous research had indicated were associated with parallel process. The examination of the relationship between these variables and the occurrence of parallel process tended to refute the analytic formulation presented in the earlier studies. Instead, the findings from the present study tended to favor a structural formulation of parallel process.

Limitations of the Study

The Observer-rated CLOIT is a new instrument and there is not sufficient normative data to develop standard scores. Since the findings confirming parallel process are based on raw scores, it could be argued that the similarity between patient and supervisee behavior is not specific to the relationships under study but are general to the scale. Further validation of parallel process would require comparison of the findings reported in the current study to results obtained by a control group. In the control group, the targeted interactions would be based on "normal" situations and there would be no status or role differences among the triad participants. If the findings obtained by the control group were similar to those obtained in the current study, it would indicate that the similarity between patient and supervisee behavior was an artifact of the scale rather than a confirmation of parallel process. The failure to use a control group is a limitation of the study.

The study examined parallel process as it was manifested during single, targeted sessions. As a consequence, no information was provided on the potential ebb and flow of parallel process from session to session. It would have been enlightening to utilize a research design that included 30 different triads but included repeated assessments for each triad at different points in the therapy process.

Another limitation of the study was the failure to obtain a random sample. The lack of a random sample limits the potential generalizability of the study. Nonetheless, the subject characteristics were quite broad and the S-Anxiety scores were consistent with what one would expect of the interactants, suggesting that the study may be reasonably generalizable.

The structural explanation of parallel process assumes that helpers manifest different behaviors than helpees. Since the current study did not include Observer-rated CLOIT scores on the therapists or the supervisors, it was not possible to assess whether helpees were in fact manifesting different behaviors than helpers. The failure to assess the behavior of therapists and supervisors is another limitation of the study.

Directions for Future Research

The current study provides additional support for the parallel process phenomenon. Given that all studies to date indicate that parallel process is a ubiquitous phenomenon, the direction of future research should shift away from demonstrating that parallel process exists and shift towards the exploration of the conditions which contribute to occurrence of parallel process.

On the basis of the results, it was suggested that the experience of anxiety results in a decrease in friendly behavior in the individual experiencing the anxiety. The presumed decrease in friendly behavior was offered as a potential explanation for the inverse relationship between relationship-anxiety and parallel process occurrence. Future studies may want to further explore this issue.

With the exception of the patients, the levels of relationship-anxiety were relatively low in the study. Future studies may want to focus on parallel process occurrence in situations where the level of anxiety is higher for the other interactants in the triad.

Although the current study failed to identify a relationship between anxiety and parallel process occurrence, future studies, using different measures of anxiety should continue examining the proposed relationship between anxiety and parallel process.

To summarize, the current study provided empirical validation of the parallel process phenomenon. Parallel process did not appear to be the result of anxiety reported in the relationships. There did appear to be an association between parallel process and the structural characteristics of the helper -- helpee relationship. The study failed to provide consistent evidence of a relationship between complementarity and relationship-anxiety.

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TABLES

Table 1

Subjects' Demographic Characteristics

Triad	Subject	Age	Sex	Race	Experience	Therapy Orientation/ or Diagnosis
1	Patient	34	Female	White	N/A	Adjustment Disorder
	Therapist	34	Male	White	6	Short-term Dynamic
	Supervisor	39	Male	White	11	Psychodynamic
2	Patient	20	Female	White	N/A	Dysthymic Disorder
	Therapist	30	Female	White	5	Systems
	Supervisor	39	Female	White	N/A	Systems
3	Patient	29	Female	White	N/A	Adjustment Disorder
	Therapist	32	Male	White	1	Cognitive/Dynamic
	Supervisor	33	Male	White	3	Eclectic
4	Patient	36	Male	White	N/A	Major Depression; Borderline
	Therapist	37	Female	White	2	Psychodynamic
	Supervisor	50	Male	White	1	Dynamic
5	Patient	39	Female	White	N/A	Borderline Personality
	Therapist	41	Female	White	2	Eclectic
	Supervisor	44	Male	White	17	Eclectic
6	Patient	28	Female	White	N/A	Schizophrenia
	Therapist	27	Female	White	4.5	Psychodynamic
	Supervisor	42	Male	White	3	Cognitive/Behavior
7	Patient	26	Male	White	N/A	Mixed Personality
	Therapist	27	Female	White	5	Psychodynamic
	Supervisor	38	Female	White	9	None stated
8	Patient	40	Female	White	N/A	Schizoaffective
	Therapist	34	Female	White	5	Psychodynamic
	Supervisor	42	Male	White	3	Cognitive/Behavioral

(table continues)

Triad	Subject	Age	Sex	Race	Experience	Therapy Orientation/ or Diagnosis
9	Patient	38	Male	White	N/A	Mixed Personality Behavioral Cognitive/Behavioral
	Therapist	32	Female	Black	4.5	
	Supervisor	34	Male	White	4	
10	Patient	21	Male	White	N/A	Narcissistic Personality Eclectic Insight Oriented
	Therapist	40	Male	White	10	
	Supervisor	32	Male	White	6	
11	Patient	72	Female	White	N/A	Adjustment Disorder Cognitive Supportive
	Therapist	46	Female	White	4	
	Supervisor	32	Male	White	6	
12	Patient	28	Female	White	N/A	Major Depression Eclectic Psychodynamic/Eclectic
	Therapist	29	Female	White	3	
	Supervisor	42	Male	White	15	
13	Patient	19	Male	White	N/A	Adjustment Disorder Psychodynamic Psychodynamic/Strategic
	Therapist	33	Female	White	11	
	Supervisor	41	Male	White	15	
14	Patient	53	Female	White	N/A	Bipolar Disorder Psychodynamic Psychodynamic
	Therapist	26	Female	White	4	
	Supervisor	34	Female	White	1.5	
15	Patient	19	Male	White	N/A	Adjustment Disorder Eclectic Systems
	Therapist	28	Male	White	4.5	
	Supervisor	30	Female	White	5	
16	Patient	31	Female	White	N/A	Panic Disorder Psychodynamic/Eclectic Eclectic
	Therapist	29	Female	White	6	
	Supervisor	32	Female	White	5	
17	Patient	19	Male	White	N/A	Alcohol Abuse Psychodynamic Psychodynamic/Eclectic
	Therapist	42	Male	White	12	
	Supervisor	35	Female	Black	6	
18	Patient	22	Female	White	N/A	Panic Disorder Cognitive/Behavioral Cognitive/Behavioral
	Therapist	24	Female	Black	2	
	Supervisor	40	Male	Black	14	
19	Patient	21	Male	White	N/A	Borderline Personality Eclectic Cognitive Behavioral
	Therapist	35	Male	White	3	
	Supervisor	50	Male	White	25	
20	Patient	30	Female	White	N/A	Borderline Personality

(table continues)

Triad	Subject	Age	Sex	Race	Experience	Therapy Orientation/ or Diagnosis
	Therapist	37	Female	White	7	Dynamic/Transgenerational Systems
	Supervisor	36	Male	White	10	
21	Patient	21	Female	White	N/A	Adjustment Disorder
	Therapist	46	Male	White	13	Structural
	Supervisor	43	Male	White	5	Structural
22	Patient	58	Male	White	N/A	Generalized Anxiety
	Therapist	43	Male	White	18	Eclectic
	Supervisor	63	Male	White	32	Eclectic
23	Patient	31	Female	White	N/A	Adjustment Disorder
	Therapist	37	Female	White	7	Structural
	Supervisor	43	Male	White	5	Structural
24	Patient	27	Female	White	N/A	Panic Disorder
	Therapist	40	Female	White	2	Eclectic
	Supervisor	62	Male	White	32	Eclectic
25	Patient	42	Male	White	N/A	No Diagnosis
	Therapist	35	Male	White	10	Cognitive
	Supervisor	30	Female	White	5	Reality Therapy
26	Patient	35	Male	White	N/A	Somatization Disorder
	Therapist	39	Female	White	3	Existential/Humanistic
	Supervisor	42	Male	White	14	Insight/Nondirective
27	Patient	41	Female	White	N/A	Borderline Personality
	Therapist	38	Female	White	1	Psychodynamic
	Supervisor	39	Male	White	7	Analytic/Interpersonal
28	Patient	21	Male	White	N/A	Obsessive - Compulsive
	Therapist	37	Female	White	6	Eclectic
	Supervisor	35	Female	White	6	Psychodynamic/Systems
29	Patient	25	Female	White	N/A	No Diagnosis
	Therapist	40	Female	White	3	Dynamic
	Supervisor	57	Male	White	17	Existential
30	Patient	48	Male	Black	N/A	Dysthymic Disorder
	Therapist	26	Male	White	1.5	Eclectic
	Supervisor	34	Male	White	4	Psychodynamic

Table 2

R Values and Z Scores For Parallel Process

Triad	r values	z scores
1	-0.058	-0.060
2	0.770	1.040
3	0.416**	0.440
4	0.335*	0.350
5	0.511****	0.670
6	-0.039	-0.040
7	0.156	0.160
8	0.029	0.030
9	0.341**	0.360
10	0.353**	0.370
11	0.512****	0.570
12	0.466****	0.500
13	-0.020	-0.020
14	0.248	0.250
15	0.057	0.060
16	0.462***	0.500
17	0.384**	0.400
18	0.751****	0.970
19	0.539****	0.600
20	0.361**	0.380
21	0.857****	1.280
22	0.519****	0.570
23	0.499****	0.550
24	0.907****	1.510
25	0.562****	0.640
26	0.479****	0.520
27	0.490****	0.540
28	0.795****	1.090
29	-0.013	-0.010
30	0.178	0.180

*p < .05, one-tailed.

**p < .025, one-tailed.

***p < .01, one-tailed.

****p < .005, one-tailed.

Table 3

R Values and Z Scores for Opposite Behaviors

Triad	r values	z scores
1	0.313*	0.320
2	-0.452***	-0.490
3	-0.262	-0.270
4	-0.502****	-0.550
5	0.479****	0.520
6	0.116	0.120
7	-0.305	-0.320
8	0.185	0.190
9	-0.521****	-0.580
10	-0.415**	-0.440
11	-0.073	-0.070
12	-0.456***	-0.490
13	-0.256	-0.260
14	0.035	0.040
15	0.094	0.090
16	-0.198	-0.200
17	-0.020	-0.020
18	-0.300	-0.310
19	-0.664****	-0.800
20	-0.460***	-0.500
21	-0.484****	-0.530
22	-0.593****	-0.680
23	-0.143	-0.140
24	-0.720****	-0.910
25	-0.227	-0.230
26	-0.471****	-0.510
27	-0.483****	-0.530
28	-0.445***	-0.480
29	0.055	0.060
30	-0.070	-0.070

*p < .05, one-tailed.

**p < .025, one-tailed.

***p < .001, one-tailed.

****p < .005, one-tailed.

Table 4

R Values and Complementarity Scores for Therapy and Supervision

Triad	Therapy r Values	Therapy Complementarity Scores	Supervision r Values	Supervision Complementarity Scores
1	0.631	0.740	0.546	0.610
2	0.286	0.290	0.522	0.580
3	0.158	0.160	0.468	0.510
4	0.431	0.460	0.480	0.520
5	-0.058	-0.060	0.514	0.570
6	-0.418	-0.440	0.552	0.620
7	0.251	0.260	0.387	0.410
8	0.318	0.330	0.708	0.880
9	0.206	0.210	0.555	0.630
10	-0.117	-0.120	0.414	0.440
11	0.308	0.320	0.770	1.020
12	0.542	0.610	0.757	0.990
13	0.309	0.320	0.391	0.410
14	0.328	0.340	0.233	0.240
15	0.197	0.200	0.419	0.450
16	0.515	0.570	0.490	0.540
17	-0.055	-0.060	0.387	0.410
18	-0.135	-0.140	0.377	0.400
19	0.349	0.360	0.382	0.400
20	0.392	0.410	0.655	0.780
21	0.296	0.300	0.058	0.060
22	0.546	0.610	0.712	0.890
23	-0.239	-0.240	0.394	0.420
24	0.097	0.100	0.635	0.750
25	0.157	0.160	0.060	0.060
26	-0.547	-0.610	0.468	0.510
27	0.578	0.660	0.521	0.580
28	0.023	0.020	-0.020	-0.020
29	-0.009	-0.010	0.399	0.420
30	0.326	0.340	0.369	0.390

Table 5

Correlations: Marlowe-Crowne Scores by S-Anxiety Scores and Complementarity Scores

	MCP ^a	MCT ^b	MCS ^c
SAP ^d	.13		
SAT ^e		.02	
SATS ^f		-.003	
SAS ^g			-.05
ZPT ^h	-.09	.03	
ZTS ⁱ		-.41*	.05

^aMCP = Patient Marlowe-Crowne.

^bMCT = Therapist Marlowe-Crowne.

^cMCS = Supervisor Marlowe-Crowne.

^dSAP = Patient S-Anxiety.

^eSAT = Therapist S-Anxiety.

^fSATS = Supervisee S-Anxiety.

^gSAS = Supervisor S-Anxiety.

^hZPT = Therapy Complementarity.

ⁱZTS = Supervision Complementarity.

* $p < .025$

Table 6

Descriptive Statistics: Relationship-Anxiety and Complementarity Measures

Variable	Mean	Standard Deviation	Variance
S-Anxiety, Patient	53.933	12.421	154.271
S-Anxiety, Therapist	45.933	8.225	67.651
S-Anxiety, Supervisee	45.200	8.227	67.683
S-Anxiety, Supervisor	40.300	5.046	25.459
Complementarity, Therapy	0.203	0.317	0.101
Complementarity, Supervision	0.516	0.249	0.062

Table 7

Cell Means for Role x Quadrant ANOVA

Role	Quadrant			
	HD ^a	HS ^b	FS ^c	FD ^d
Patient	0.68	1.07	1.94	1.77
Supervisee	0.38	0.48	1.60	1.47

^aHD = Hostile Dominance. ^bHS = Hostile Submissive.

^cFS = Friendly Submissive. ^dFD = Friendly Dominance.

FIGURES

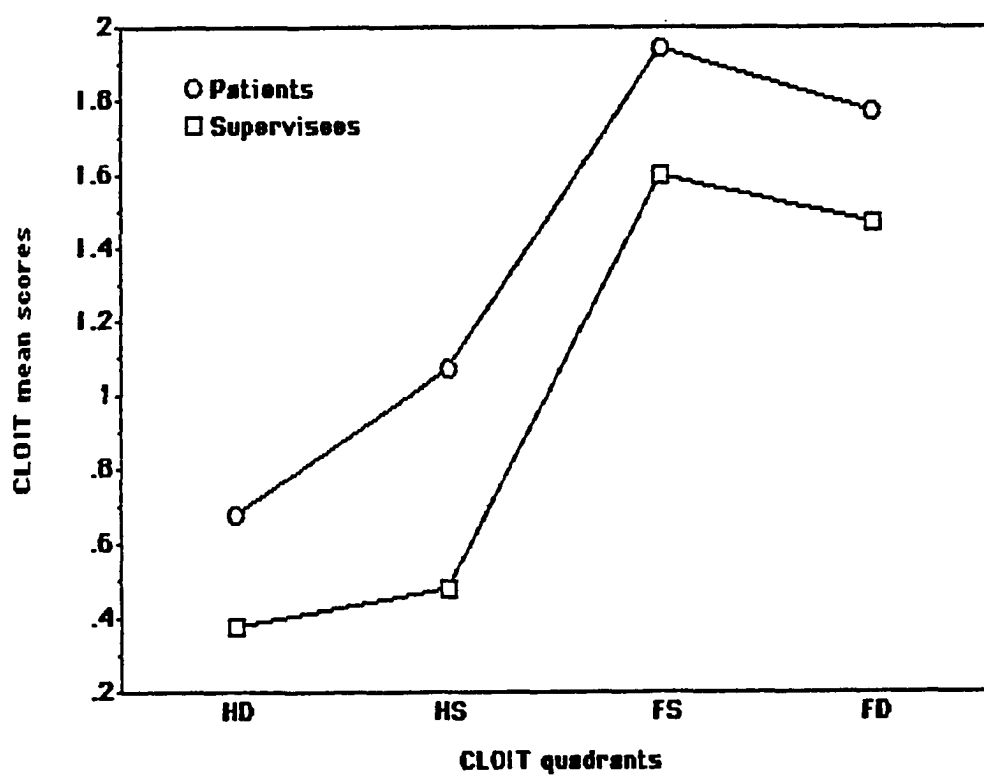


Figure 1. Patients' and supervisees' mean CLOIT scores by CLOIT quadrant.

APPENDICES

INSTRUMENTS

PLEASE NOTE:

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These consist of pages: 76-98

U·M·I

Supplemental Data Sheet (Therapist)

Patient Information:

1. Age _____ 2. Sex _____ 3. Race _____
4. Patient diagnosis (DSM III)
 Axis 1: _____
 Axis 2: _____
5. Session number ____ 6. Setting: Inpatient _____ Outpatient _____

Therapist Information:

1. Age ____ 2. Sex ____ 3. Race ____ 4. Months at internship _____
5. Therapy orientation _____
6. Years of experience _____ 7. Highest degree obtained _____
8. Candidate: M.A. ____ M.S.W. ____ Ph.D. ____ Psy.D. ____ Other ____
9. Was the therapy session audio taped? _____ video taped? _____
10. During the targeted therapy session, did you experience emotions either associated with the session or directed toward the patient which had a detrimental effect on the therapy? _____
11. If the answer to the above question was yes, would you briefly explain on the back of this form.
12. During the targeted supervision session, did you experience emotions either associated with the session or directed toward the supervisor which had a detrimental effect on the supervision? _____
13. If the answer to the above question was yes, would you briefly explain on the back of this form.
14. Circle the number which describes the degree to which the targeted therapy relationship was similar to your typical therapy session.
- | | | | | | | | | |
|---------------------|---|---|---|---|---|---|---|-----------------|
| Not Very
Typical | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very
Typical |
|---------------------|---|---|---|---|---|---|---|-----------------|
15. Circle the number which describes the degree to which the therapy relationship was discussed during the targeted therapy session.
- | | | | | | | | | |
|--------------------------|---|---|---|---|---|---|---|------------------------|
| Discussed
Very Little | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Discussed
Very Much |
|--------------------------|---|---|---|---|---|---|---|------------------------|
16. To what extent was crisis management the focus of the targeted session?
- | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|--------------|
| Very
Little | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very
Much |
|----------------|---|---|---|---|---|---|---|--------------|

Supplemental Data Sheet (Supervisor)

1. Age _____ 2. Sex _____ 3. Race _____
4. Supervision/Therapy orientation _____
5. Number of years post doctoral experience _____
6. Highest degree obtained _____
7. During the targeted supervision session, did you experience emotions either associated with the session or directed toward the supervisee which had a detrimental effect on the supervision? _____
8. If the answer to the above question was yes, would you briefly explain on the reverse side of this form.
9. Circle the number which describes the degree to which the targeted supervision relationship was similar to your typical supervision session.

Not Very Typical	1	2	3	4	5	6	7	Very Typical
---------------------	---	---	---	---	---	---	---	-----------------
10. Circle the number which describes the degree to which the therapy relationship was discussed during the targeted supervision session.

Discussed Very Little	1	2	3	4	5	6	7	Discussed Very Much
--------------------------	---	---	---	---	---	---	---	------------------------
11. Circle the number which describes the degree to which the supervision relationship was discussed during the targeted supervision session.

Discussed Very Little	1	2	3	4	5	6	7	Discussed Very Much
--------------------------	---	---	---	---	---	---	---	------------------------
12. To what extent was crisis management the focus of the targeted session?

Very Little	1	2	3	4	5	6	7	Very Much
----------------	---	---	---	---	---	---	---	--------------
13. Please estimate in percentages the degree to which the following items represented the primary focus of the targeted supervision session.

process notes _____	relationship discussion _____
audio tapes _____	video tapes _____
general recall _____	direct observation _____

Self-Evaluation Questionnaire

DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then circle the number to the right of the statement to indicate how you felt **during the targeted therapy session**. In other words, circle the number which best indicates the extent to which the statement describes the feelings you had as a consequence of your experience during the session. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to best describe the feelings you had during the targeted session.

	NOT AT ALL	SOME- WHAT	MODER- ATELY	VERY MUCH SO
1. I felt calm	1	2	3	4
2. I felt secure	1	2	3	4
3. I was tense	1	2	3	4
4. I felt strained	1	2	3	4
5. I felt at ease	1	2	3	4
6. I felt upset	1	2	3	4
7. I was worrying over possible misfortunes	1	2	3	4
8. I felt satisfied	1	2	3	4
9. I felt frightened	1	2	3	4
10. I felt comfortable	1	2	3	4
11. I felt self-confident	1	2	3	4
12. I felt nervous	1	2	3	4
13. I was jittery	1	2	3	4
14. I felt indecisive	1	2	3	4
15. I was relaxed	1	2	3	4
16. I felt content	1	2	3	4
17. I was worried	1	2	3	4
18. I felt confused	1	2	3	4
19. I felt steady	1	2	3	4
20. I felt pleasant	1	2	3	4
21. Rate the extent to which the discomfort reported above relates to your relationship with the patient	1	2	3	4

Self-Evaluation Questionnaire

DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then circle the number to the right of the statement to indicate how you felt **during the targeted therapy session**. In other words, circle the number which best indicates the extent to which the statement describes the feelings you had as a consequence of your experience during the session. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to best describe the feelings you had during the targeted session.

	NOT AT ALL	SOME- WHAT	MODER- ATELY	VERY MUCH SO
1. I felt calm	1	2	3	4
2. I felt secure	1	2	3	4
3. I was tense	1	2	3	4
4. I felt strained	1	2	3	4
5. I felt at ease	1	2	3	4
6. I felt upset	1	2	3	4
7. I was worrying over possible misfortunes	1	2	3	4
8. I felt satisfied	1	2	3	4
9. I felt frightened	1	2	3	4
10. I felt comfortable	1	2	3	4
11. I felt self-confident	1	2	3	4
12. I felt nervous	1	2	3	4
13. I was jittery	1	2	3	4
14. I felt indecisive	1	2	3	4
15. I was relaxed	1	2	3	4
16. I felt content	1	2	3	4
17. I was worried	1	2	3	4
18. I felt confused	1	2	3	4
19. I felt steady	1	2	3	4
20. I felt pleasant	1	2	3	4
21. Rate the extent to which the discomfort reported above relates to your relationship with the therapist ..	1	2	3	4

Self-Evaluation Questionnaire

DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then circle the number to the right of the statement to indicate how you felt during the targeted supervision session. In other words, circle the number which best indicates the extent to which the statement describes the feelings you had as a consequence of your experience during the session. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to best describe the feelings you had during the targeted session.

	NOT AT ALL	SOME- WHAT	MODER- ATELY	VERY MUCH SO
1. I felt calm	1	2	3	4
2. I felt secure	1	2	3	4
3. I was tense	1	2	3	4
4. I felt strained	1	2	3	4
5. I felt at ease	1	2	3	4
6. I felt upset	1	2	3	4
7. I was worrying over possible misfortunes	1	2	3	4
8. I felt satisfied	1	2	3	4
9. I felt frightened	1	2	3	4
10. I felt comfortable	1	2	3	4
11. I felt self-confident	1	2	3	4
12. I felt nervous	1	2	3	4
13. I was jittery	1	2	3	4
14. I felt indecisive	1	2	3	4
15. I was relaxed	1	2	3	4
16. I felt content	1	2	3	4
17. I was worried	1	2	3	4
18. I felt confused	1	2	3	4
19. I felt steady	1	2	3	4
20. I felt pleasant	1	2	3	4
21. Rate the extent to which the discomfort reported above relates to your relationship with the supervisee	1	2	3	4

Self-Evaluation Questionnaire

DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then circle the number to the right of the statement to indicate how you felt during the targeted supervision session. In other words, circle the number which best indicates the extent to which the statement describes the feelings you had as a consequence of your experience during the session. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to best describe the feelings you had during the targeted session.

	NOT AT ALL	SOME- WHAT	MODER- ATELY	VERY MUCH SO
1. I felt calm	1	2	3	4
2. I felt secure	1	2	3	4
3. I was tense	1	2	3	4
4. I felt strained	1	2	3	4
5. I felt at ease	1	2	3	4
6. I felt upset	1	2	3	4
7. I was worrying over possible misfortunes	1	2	3	4
8. I felt satisfied	1	2	3	4
9. I felt frightened	1	2	3	4
10. I felt comfortable	1	2	3	4
11. I felt self-confident	1	2	3	4
12. I felt nervous	1	2	3	4
13. I was jittery	1	2	3	4
14. I felt indecisive	1	2	3	4
15. I was relaxed	1	2	3	4
16. I felt content	1	2	3	4
17. I was worried	1	2	3	4
18. I felt confused	1	2	3	4
19. I felt steady	1	2	3	4
20. I felt pleasant	1	2	3	4
21. Rate the extent to which the discomfort reported above relates to your relationship with the supervisor	1	2	3	4

INSTRUCTIONS

Therapist Information Letter

Dear Potential Participant:

Let me thank you in advance for reading through this information.

I am recruiting people to participate in my dissertation. Therapists who complete the study will receive \$50.00. In order to be eligible, you must be providing individual therapy to someone who is at least 18 years old. Additionally, you must be receiving clinical supervision on the therapy you are providing. If you meet this criteria, please read on.

Following is a brief description of the study. Subjects in the study will be organized into triads. Each triad will consist of a patient, a therapist, and a supervisor. Each triad member will complete a questionnaire that will assess interpersonal style. Completing the questionnaire should require about 15 to 20 minutes and can be done at the convenience of the subject. Following a single, targeted therapy session, the patient will complete a checklist which should take no more than 5 minutes to finish. The therapist will complete two questionnaires which should take about 20 minutes. The supervision session immediately following the targeted therapy session will be designated as the targeted supervision session. Following the targeted supervision session, both the supervisor and the therapist will complete several questionnaires which, in total, should take approximately 20 minutes. It should take you, the therapist, no longer than 60 minutes to complete all the materials for which you are responsible.

You will also be responsible for identifying a patient and a supervisor to complete the triad. In addition, you will coordinate the data collection within the triad. The coordination duties involve distributing the data packets and collecting the same packets when they are completed. When the completed data is returned to the address provided below, you will receive \$50.00.

If you are interested in being in the study, open the envelope marked Therapist Instructions. You will find this envelope inside the envelope marked "Therapist Materials", which in turn is inside the "Triad Materials" envelope. Inside are instructions that detail everything you will need to do in order to successfully complete the study. If you don't want to participate, please return the packet.

Completed data packets should be returned to the following address: Tom Pollack; 637 New Jersey Ave.; Norfolk, VA 23508. Include a return address. Upon receipt of the completed materials, I will forward you \$50.00. If you have any additional questions, I may be reached in the evenings at 804-625-2882.

Sincerely,

Tom Pollack

Therapist Instructions

The instructions that follow will specify the responsibilities required in order to successfully participate in the research project. The instructions are provided in the form of a timetable of events. Remember, the therapist coordinates all the activity within the triad of subjects (patient, therapist, and supervisor).

Participation in the study requires a minimum of time and effort. Nonetheless, it is important that you understand exactly what your responsibilities will be. After reading through the material, if you have any questions, please contact Tom Pollack at the following phone number: 804-625-2882.

Research Timetable:

1. An informed consent form is included in this packet. After reading it carefully, sign it and place it in the COMPLETED MATERIALS envelope.

Please note: the envelope marked "THERAPIST MATERIALS" should be used as the COMPLETED MATERIALS envelope. All questionnaires that you complete or receive completed from other triad members should be placed in the COMPLETED MATERIALS envelope.

2. Within 7 days of signing the consent form, the questionnaires enclosed in the envelope marked "THERAPIST 1" should be completed according to the instructions affixed to the envelope.
3. Using the following procedures, recruit a supervisor to participate in the study.

Supervisor recruitment procedures: Give the prospective supervisor the "Supervisor Information Letter" (several are included in this packet). It will describe the study to the supervisor. Supervisors expressing an interest in participation should be given the envelope marked "SUPERVISOR MATERIALS". An informed consent form is included among those materials. Your receipt of the signed consent form will confirm the supervisor's participation.

Please note: A supervisor may participate in more than one triad. Therapists and patients may only participate in a single triad. Only a single supervisor consent form need be signed if the supervisor is participating in more than one triad.

4. Using the following procedures, recruit a client to participate in the study.

Client recruitment procedures: Approach the client outside of the therapy hour. If you are engaging the client in outpatient therapy, you should bring up the subject at the close of the therapy hour. Provide the client with the Client Briefing Form (you will find one included in this packet). The Client Briefing Form will describe the study to the client and has stapled to it an informed consent form. Have the client read these materials. After the client has made it clear that he or she understands the expectations of participation, have them sign the form and witness the signature. Collect the signed consent form and provide the client with the Client Information Packet.

Please note: you will need to place your name in the provided space on the client's consent form.

5. In collaboration with your supervisor, identify a targeted therapy session and a targeted supervision session. The targeted therapy session may be any convenient session but should be identified prior to that session. The supervision session immediately following the targeted therapy session will be designated as the targeted supervision session.

Please note: for the purposes of this study, the targeted supervision session should focus on the targeted therapy session.

6. At the close of the targeted therapy session, the client is provided with the envelope marked CLIENT 2. Allow the client about 5 to 10 minutes to complete the questionnaire enclosed in the CLIENT 2 envelope. In addition, you should complete the questionnaires in the envelope marked THERAPIST 2. Instructions for completing the questionnaires are affixed to THERAPIST 2 envelopes.

Please note: at the close of the targeted therapy session all the client materials should have been collected. In addition to the materials in CLIENT 2, the client has completed materials contained in the Client Information Packet.

7. Following the targeted supervision session, complete the questionnaires in the envelope marked THERAPIST 3. The instructions for completing these materials are affixed to the THERAPIST 3 envelope.
8. Collect the questionnaires completed by the supervisor. Place all the completed questionnaires and consent forms in the COMPLETED MATERIALS envelope and return them to Tom Pollack.

Client Briefing Form

As is generally true for any therapist, the therapist with whom you are working is receiving supervision. The research project in which you are being asked to participate will investigate the way in which the therapy relationship and the supervision relationship may influence each other.

Your participation in the study will consist of completing two questionnaires. One questionnaire will provide information about how you typically interact with others. The other questionnaire will determine how comfortable you were during a particular therapy session. In addition, your therapist will be completing a questionnaire designed to assess the interpersonal behaviors you exhibited during a particular therapy session. It should take you no longer than 30 minutes to complete the required questionnaires. Please be aware that your therapist will not have information about the findings of any of the questionnaires used in this study. Your therapist is available to answer any additional questions you may have concerning the nature of the study.

If you are interested in participating in the study, read the consent form stapled to this letter. It contains some additional details concerning the requirements involved in participating in the research project. Your signature on the consent form will indicate that you have agreed to participate in the study. Please understand that you may change your mind at any time.

If you decide to be in the study, you will receive a Client Information Packet. The information packet will guide you through the things you will need to do in order to participate in the study.

I want to express my thanks for giving me your time.

4.

Supervisor Information Letter

Dear Potential Participant:

Let me thank you in advance for reading through this letter.

I am recruiting people to participate in my dissertation. In order to be eligible, you must be supervising someone who is providing therapy to anyone 18 years of age or older. If you meet this criteria, please read on.

Following is a brief description of the study. Subjects in the study will be organized into triads. Each triad will consist of a patient, a therapist, and a supervisor. Each triad member will complete a questionnaire that will assess interpersonal style. Completing the questionnaire should require about 15 to 20 minutes and can be done at the convenience of the subject. Following a single, targeted therapy session, the patient will complete a checklist which should take no more than 5 minutes to finish. The therapist will complete two questionnaires which should take about 20 minutes. The supervision session immediately following the targeted therapy session will be designated as the targeted supervision session. Following the targeted supervision session, both the supervisor and the therapist will complete several questionnaires which, in total, should take approximately 20 minutes. It should take you, the supervisor, no longer than 45 minutes to complete all the materials for which you are responsible.

If you are interested in being in the study, request from your supervisee an envelope marked "Supervisor Materials". Inside are a set of instructions that detail everything you will need to do in order to successfully complete the study. Stapled to the instructions is an informed consent form which should be signed and returned to your supervisee.

Thank you for your time.

Sincerely,

Tom Pollack

Supervisor Instructions

The instructions that follow will specify the responsibilities required in order to successfully participate in the research project. The instructions are provided in the form of a timetable of events. Please note that the therapist coordinates all the activity within the triad of subjects (patient, therapist, and supervisor) and is the person to whom questions concerning the study should be directed.

Participation in the study requires a minimum of time and effort. Nonetheless, it is important that you understand exactly what your responsibilities will be. After reading through the material, if you have any questions, discuss them with the therapist.

Research Timetable:

1. Attached to these instructions is an informed consent form. After reading it carefully, sign it and return it to the therapist.
2. Within 7 days of signing the consent form, the questionnaires enclosed in the envelope marked SUPERVISOR 1 should be completed. Follow the instructions affixed to the SUPERVISOR 1 envelope.

Please note: if you are participating in more than one triad, the questionnaires in SUPERVISOR 1 need only be completed once. In the upper right hand corner of the SUPERVISOR 1 questionnaires, place the number for each triad in which you are a participant. The triad number can be found in the upper right hand corner of every questionnaire used in the study.

3. The therapist selects a client to complete the triad. The therapist has specific procedures for selecting a client and can share those procedures with you.
4. In collaboration with the therapist, a targeted therapy session and a targeted supervision session are identified. The targeted therapy session may be any convenient session but must be identified prior to that session. The supervision session immediately following the targeted therapy session will be designated as the targeted supervision session.

Please note: for the purposes of this study, the targeted supervision session should focus on the targeted therapy session.

5. Following the targeted supervision session, the questionnaires enclosed in the envelope marked SUPERVISOR 2 should be completed. The instructions for completing these materials are affixed to the envelope.
6. All completed materials should be returned to the therapist.

Client Instructions

The instructions that follow will specify the responsibilities required in order to successfully participate in the research project. The instructions are provided in the form of a timetable of events.

Participation in the study requires a minimum of time and effort. Nonetheless, it is important that you understand exactly what your responsibilities will be. After reading through the material, if you have any questions, discuss them with your therapist.

Research Timetable:

1. After reading this letter, you should complete the materials enclosed in the envelope marked CLIENT 1. The instructions for completing the materials in the CLIENT 1 envelope are affixed to the outside of the envelope. Return the completed materials to your therapist at the next therapy session.
2. At the close of one of your therapy sessions, your therapist will give you an envelope marked CLIENT 2. Following the instructions on the envelope, complete the questionnaire enclosed in the envelope. Return the completed questionnaire to your therapist immediately upon completing it.

CONSENT FORMS

**An Investigation of Interpersonal Process
Informed Consent Form (Therapist)**

I am being asked to participate in an investigation of the interactive processes that occur between therapy and supervision. I will be asked to complete several questionnaires. The instruments are designed to assess interpersonal processes. I will also be asked questions about the level of comfort I experienced during a targeted therapy and supervision session. I understand that it should take approximately 60 minutes to complete all the instruments used in the study.

Every effort will be made to protect my confidentiality. My name will not appear on any of the instruments I complete. I understand that the results of the study will appear in aggregate form only; data concerning individuals will not be reported or discussed in any manner. If data resulting from this study are published or presented at a meeting, I will not be identified without my written permission.

My participation in the study is voluntary. I may withdraw from the study at any time. If I have any questions about the study, I may call Mr. Tom Pollack, the principle investigator, at phone # 804-625-2882.

The inconvenience associated with participation in the study should be limited to the amount of time and effort required to complete the questionnaires. There are no known risks associated with completing the questionnaires. There may be other risks not yet identified.

To the extent that completing the projects' questionnaires results in an increase in my knowledge of interpersonal processes, participation in the study may be beneficial to both the therapy and the supervision. In addition, I will be paid \$50.00 for coordinating the research activities occurring within the triad in which I am a member. In order to receive payment, all the subjects in the triad need to complete all the required questionnaires.

My signature below will indicate that I have understood the contents of this form and voluntarily agreed to participate in this study. If I am interested in receiving a summary of the results of this study I will include my address beneath my signature.

SUBJECT'S SIGNATURE

DATE

ADDRESS (PLEASE PRINT)

**An Investigation of Interpersonal Process
Informed Consent Form (Client)**

As is generally true for any therapist, I understand that the therapist with whom I am working is receiving supervision. The research project in which I am being asked to participate will investigate the way in which the therapy relationship and the supervision relationship may influence each other.

I will be asked to complete several questionnaires. The questionnaires will ask how I typically interact with others. I will also be asked questions about the level of comfort I experienced during a particular therapy session. I understand that it should take approximately 30 minutes to complete all the instruments used in the study.

Every effort will be made to protect my confidentiality. My name will not appear on any of the instruments I complete. I understand that the results of the study will not report information about any of the individual people who participated in the study. If data resulting from this study are published or presented at a meeting, I will not be identified without my written permission.

My participation in the study is voluntary. I may withdraw from the study at any time. If I have any questions about the study, I may discuss them with my therapist

_____.

The inconvenience associated with participation in the study should be limited to the amount of time and effort required to complete the questionnaires. There are no known risks associated with completing the questionnaires. There may be other risks not yet identified.

To the extent that completing the studies' questionnaires may increase my knowledge of my self and the general way in which I interact with others, participation in the study may be beneficial to my therapy.

My signature below will indicate that I have understood the contents of this form and voluntarily agreed to participate in this study. If I am interested in receiving a summary of the results of this study I will include my address beneath my signature.

CLIENT SIGNATURE

DATE

ADDRESS (PLEASE PRINT)

I, _____, the client's therapist, acting on behalf of the investigator, have explained the above to the subject on the date stated on this consent form.

WITNESS/THERAPIST SIGNATURE

DATE

**An Investigation of Interpersonal Process
Informed Consent Form (Supervisor)**

I am being asked to participate in an investigation of the interactive processes that occur between therapy and supervision. I will be asked to complete several questionnaires. The instruments are designed to assess interpersonal processes. I will also be asked questions about the level of comfort I experienced during a targeted supervision session. I understand that it should take approximately 45 minutes to complete all the instruments used in the study.

Every effort will be made to protect my confidentiality. My name will not appear on any of the instruments I complete. I understand that the results of the study will appear in aggregate form only; data concerning individuals will not be reported or discussed in any manner. If data resulting from this study are published or presented at a meeting, I will not be identified without my written permission.

My participation in the study is voluntary. I may withdraw from the study at any time. If I have any questions about the study, I should contact the supervisee.

The inconvenience associated with participation in the study should be limited to the amount of time and effort required to complete the questionnaires. There are no known risks associated with completing the questionnaires. There may be other risks not yet identified.

To the extent that completing the projects' questionnaires results in an increase in my knowledge of interpersonal processes, participation in the study may be beneficial to both the therapy and the supervision.

My signature below will indicate that I have understood the contents of this form and voluntarily agreed to participate in this study. If I am interested in receiving a summary of the results of this study I will include my address beneath my signature.

SUBJECT'S SIGNATURE

DATE

ADDRESS (PLEASE PRINT)

AUTOBIOGRAPHICAL STATEMENT

Thomas E. Pollack was born in Baltimore, Maryland on October 12, 1951. He graduated from the University of Maryland, Baltimore County campus in 1973 with a B.A. in psychology.

After graduation, Thomas worked as psychiatric nursing assistant. He then pursued graduate work and received a Master's Degree in Developmental Clinical Psychology from Antioch University in 1977.

In 1979, he began working as a Master's level psychologist in a rural community mental health clinic in Western Maryland. He remained in Western Maryland for three years where he provided counseling services to a varied patient population.

In 1983, Thomas returned to graduate school at the Virginia Consortium for Professional Psychology. In 1986, he completed an internship at Taylor Manor Hospital in Ellicott City, Maryland. While on internship he met his wife to be, Lisa Powell.

After completing doctoral coursework, he worked as the Director of the Adult Partial Hospital Program at Portsmouth Psychiatric Center and became a Licensed Professional Counselor in the State of Virginia in 1987. In 1989, Thomas was promoted to the position of Coordinator of Adult Services in Portsmouth Psychiatric Center. He successfully defended her dissertation and received a doctorate in clinical psychology on January 12, 1990.