A MULTIPLE CASE STUDY OF REFERRAL OF CLIENTS TO THERAPISTS USING AN EVIDENCE-BASED COMPUTERIZED MATCHING SYSTEM

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Abstract

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The usual method of referral of people to therapy by other therapists, by other types of professionals, and by friends, is unsystematic and unsupported by research. This project attempted to take a first preliminary step toward overcoming this problem by developing and studying a rational referral system based on psychotherapy research.

The literature on psychotherapy process and outcome research was examined for findings that are relevant to matching clients to therapists. Approximately 30 matching criteria were selected from this research evidence. These matching criteria were then developed into approximately 50 specific matching recommendations. These matching recommendations were then combined into a computer based assessment which clients and therapists answered in separate questionnaires. A computer program then generated numerical match ratings for client-therapist pairs.

This matching system was then studied in a multiple case study. Twenty-five therapists were given the therapist questionnaire, and their answers put into a database. Six clients were then given the client questionnaire, and matched to therapists using this

matching system. The first three therapy sessions for each match pair were analyzed with written session assessments filled out by each client and therapist for each session, and follow-up interviews were conducted after the third session.

The data from the session assessments, questionnaires, and interviews were then analyzed with a combination of quantitative and qualitative methods. The study results showed a large range of effectiveness among the different matching recommendations. The study results also indicated directions for improving the matching system to create a more effective system.

Both therapists and clients reported very positive experiences from using this matching system. Many therapists were eager to participate in the study. Three clients stated they were particularly pleased to have this system available because they wanted to see therapists and didn't know how to find appropriate therapists. All clients and therapists stated that they felt they were well matched to each other.

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CHAPTER 1: INTRODUCTION

GENERAL DESCRIPTION AND PURPOSE

The purpose of this research project was to develop and study a formal computerized system of referral of clients to therapists by matching them with each other. In this dissertation, this system will be referred to as the *matching system* when discussing the system in general, and as the *matching program* when discussing the computer program used to make the matches. This project consisted of the following steps:

1) The literature on psychotherapy process and outcome research was examined to discover information that was relevant to matching clients to therapists.

2) Matching criteria and specific matching recommendations were developed from this research evidence.

3) These matching recommendations were combined into a computer program that assessed clients and therapists in relevant areas through separate computerized questionnaires, and then created numerical match ratings for client-therapist pairs.

4) This matching system was then studied in a multiple case study in which six clients were matched to therapists, and the first three sessions for each match pair were analyzed.

RATIONALE FOR THIS PROJECT

The rationale for this project is that a system of referrals based on something other than chance and intuition is needed by the psychotherapy profession. The usual method of referral of people to therapy by other therapists, by other types of professionals, and by friends, appears to lack objectivity and lack support from research or from any system whatsoever. This project attempted to take a first preliminary step toward overcoming this problem by developing and studying a rational referral system based on psychotherapy research.

How are referrals of clients to therapists commonly made? Twenty-five years ago, Berzins (1977, p. 223) wrote "the assignment of patients to therapists is accomplished by asking which therapist has a vacancy, whose turn it is in the rotation, what the demands of teaching or training needs are, or what the intake interviewer's or the secretary's intuitions regarding the therapist of choice for a particular patient might

be." According to Clopton and Haydel (1982), referrals from psychotherapists to other psychotherapists are strongly based on intuition and personal judgement, instead of attempts to objectively match the client to the most appropriate therapist. Wood and Wood (1990) believe these referrals are also influenced by therapists referring to therapists with whom they can identify, and to therapists who they believe will reciprocate and refer clients back to them. Rudisill, Painter, Rodenhauser, and Gillen (1989) studied physicians' referrals to psychotherapists, and found that by far the most common method of finding therapists was personal knowledge of, or acquaintance with the therapist. The second most common method was opinions of other physicians. Although ability and availability were rated as the two most important therapist characteristics for referrals, there was no indication that any attempt was made to match patient characteristics with therapist or therapy characteristics in any way. According to Klein (1999), psychotherapists tend to act as if everyone will benefit most from the approaches in which they were trained, and refer clients to therapists they know who practice the same systems they do.

Klein (1999) suggests that the field of psychotherapy may need a new profession of experts at referrals. The intent of this project was to expand on this idea, and develop and study a practical system of referral based on research described in the psychotherapy literature.

REFERRALS TO INDIVIDUAL, GROUP, OR FAMILY THERAPY

It would be very beneficial to include in any complete referral system a method of deciding whether clients should be referred to individual, group, or family therapy. Unfortunately, the few suggestions in the literature on how to make such decisions are based on therapists' judgements and experience, not on research (Clarkin, Frances, and Perry, 1992; Grunebaum and Kates, 1977). It was decided to only include referrals to individual therapy in this project for two reasons. First, this project was intended as a first step in developing a system of referral, and the inclusion of the individual-family-group differentiation would have added a level of complication that exceeded what was required for the first version of such a system. Second, adding this type of referral

differentiation would have made the project much more difficult to evaluate. It was difficult enough trying to create and evaluate a matching system for individual clients and therapists, without also trying to add matching clients to either individual, group, or family therapy.

The problem of when to refer to individual, group, or family therapy, and the effect of different referrals, is probably best addressed in studies that specifically address these particular issues. This study specifically recruited clients who wanted to see individual therapists.

SPECIFIC GOAL OF THE MATCHING SYSTEM: INITIAL CLIENT COMFORT

The matching system had the very specific goal of matching to maximize clients' comfort in the first three sessions of therapy. *Client comfort* means the absence of distress caused by a reaction of the client to any aspect of the therapist, therapy, or therapeutic relationship. In all aspects of the matching system where the conclusion was that referral should be based on clients' preferences, rather than some other type of matching, this was a major rationale.

It was assumed that any matching system that maximized initial client comfort would in general decrease premature therapy termination. An important cause of ineffectiveness of therapy is clients terminating treatment prematurely (Garfield, 1994; Reis and Brown, 1999). According to Garfield (p. 195), "most clients remain in therapy for relatively few interviews." Brogan, Prochaska, and Prochaska (1999) estimated that an average of 40% of clients are premature terminators of their therapy. Therefore, if clients can be helped through a matching system to not quit therapy prematurely, the overall outcome of therapy will improved.

The more ambitious goal of improving therapy outcome was less directly addressed, due to problems in connecting initial client comfort with eventual outcome. In fact, an argument has been made that a certain amount of initial client discomfort improves eventual outcome, possibly through the mechanism of clients learning to overcome difficulties during the therapeutic process (Arizmendi, Beutler, Shanfield, Crago, & Hagaman, 1985; Beutler, Arizmendi, Crago, Shanfield, & Hagaman, 1983). A

position had to be taken to either ignore client comfort, try to increase client comfort, try to decrease client comfort, or some combination of these in different situations. There is no research relating to how these considerations should be balanced. Therefore, the decision was made to try to increase client comfort in early sessions.

It is obvious that the longer a client and therapist know each other, the deeper and more complex their relationship will be. The more complex their relationship, the more difficult it is to analyze. In a sense, this is why almost all of the research on psychotherapy involves relatively short term treatments and describes results based on relatively few treatments (Goldfried & Wolfe, 1998; Westen, 2002). This means that it is more practical to aim a matching system at the earliest sessions of therapy.

Where parts of the matching system are based on criteria other than client preferences, the research on which the matching system was based always referred to aspects that would be most relevant during the early sessions, and in almost every case, were related in some way to initial client comfort. For example, Beutler and associates believe that the less client resistance is activated, the better the outcome for therapy (Beutler et al., 1991; Beutler & Harwood, 2000), and specifically suggest that therapy directiveness should be inversely related to client resistance. The obvious rationale is that this decreases client discomfort, which is especially relevant in early sessions.

It may be that client comfort is important for reasons other than alleviating dropout. Research may eventually show that increased client comfort is directly related to improved outcome. The arguments that therapy is effective through the creation of hope or removal of demoralization (Snyder, Michael, & Cheavens, 1999; Frank and Frank, 1991) lends credence to this idea.

NO BIAS TOWARD ANY THERAPY SYSTEM

A guiding principle for the matching system was an attempt to not bias it toward any system of therapy. Since most psychotherapy research has been done within the cognitive and behavioral perspectives, this system-neutral stance required some creativity. The hoped for final result was a system that not only gave therapists who practiced within any system of therapy equal chance of being matched, but also was palatable to therapists

from all perspectives.

GENERAL DELIMITATION

The major delimitation for this project is that this matching system was intended to be only a rudimentary and preliminary first attempt at matching clients to therapists. This was a completely new approach, as there were no existing formal matching or referral systems to use as the basis for a new system. In addition, there was virtually no research directly related to matching or referrals. Therefore, this new system was not intended to be a complete system that solved most of the problems of referrals of clients to therapists. It was intended instead to be a preliminary first attempt to develop a working system, and then to test that system. It was expected that results from the testing of this system, and results of future psychotherapy research, will suggest changes to the system that would likely make it almost unrecognizable in comparison to the system developed during this project. However, all journeys begin with a single step, and hopefully this project was a step in the right direction.

FUTURE OF THIS MATCHING SYSTEM

The normal course for a psychology doctoral dissertation is a huge amount of work put into an interesting study, a huge amount of work put into a thorough write-up in a dissertation, possibly a paper or two published based on the dissertation, and then the subject is abandoned. If that happens with this matching program, it will have been a complete failure, a waste of the researcher's time and money, and a waste of the expertise and training provided by Saybrook Graduate School.

The project of creating this matching system, carrying out the study of it, and writing up the study in this dissertation, will have taken the researcher approximately three years. It is an extremely ambitious project, with the goal of eventually creating a useable matching system that will help clients find therapists who are well matched to them. If this matching system ends after this dissertation, it will not have accomplished this goal. This goal can only be accomplished by the continual improvement of the matching system as an ongoing project, until eventually a matching system exists that is

much more sophisticated than this primitive beginning, and is a system that clients and therapists can rely on with confidence.

This goal of creating a useful matching system is obviously a very long-range goal. The first step toward this goal was the creation and study of this matching system. The second step is the improvement of the matching system, based on the results of the study described in this dissertation. Therefore, the analysis of the data from this study is oriented toward this improvement. Subsequent steps would be subsequent studies of the matching system, with subsequent improvements based on the study results. However, this dissertation will end with the suggestions for improvement to the next version after the version used for this study.

CHAPTER 2: LITERATURE REVIEW (SELECTION OF MATCHING CRITERIA)

DEFINITIONS

Aptitude

There is much discussion in the literature of *aptitude by treatment interactions* (ATI's), in which the effects on process and outcome of the interaction between aptitudes of clients and methods and techniques of therapy have been investigated (Dance & Neufeld, 1988; Norcross, 2001; Smith & Sechrest, 1991). In ATI research, the word "aptitude" refers to any characteristic of a person or the person's environment that can be measured and that may affect response to the treatment (Anderson, 1998; Piper, Joyce, McCallum, Azim, and Ogrodniczuk, 2002).

Psychopharmacology

Psychopharmacology or pharmacotherapy refers to use psychoactive drugs to accomplish psychological change, that is, to treat psychological problems.

OVERVIEW OF MATCHING CRITERIA

There are two types of matching criteria in the matching system. The first type is named *client characteristics* in this dissertation. Client characteristics are client aptitudes or any other characteristic of clients, including diagnoses, on which matching recommendations are based. The only other type of matching criterion in this matching system is *client preferences*. This includes preferences for any aspect of therapists, such as therapist demographics, or for any aspect of the therapy practiced by therapists, such as concentration on immediate symptom relief versus concentration on insight or depth. Each of these two types of matching criteria will be discussed in separate sections below.

In many cases, aspects of therapy or therapists that at first were thought to be useable for matching according to client characteristics, were removed from that category after it was decided that research had failed to confirm a benefit from matching on these characteristics. Usually, these therapy or therapist aspects were then transferred into client preferences. For example, this is the case in matching by demographic similarity. These cases will be discussed in detail below in the section on matching by client preferences. Whenever it was decided to give clients a preference for aspects of therapy or therapists, an underlying

assumption was that this would be empowering for clients, and thus engender feelings of hope and self-efficacy, both of which are important in therapy (Frank and Frank, 1991; Snyder, Michael, & Cheavens, 1999).

MATCHING BY CLIENT CHARACTERISTICS

Basis for Inclusion in Matching System

In order to select criteria for matching by client characteristics, the literature on psychotherapy research was searched for explicit suggestions for matching clients to therapists or therapy based on these characteristics. Unfortunately, there were almost no suggestions of this type in the literature. Therefore, as the next best system, suggestions for therapists modifying their treatments according to client characteristics were examined. These suggestions for modifying treatment could then be translated into therapists' usual emphasis or styles. A client characteristic that had a suggestion that could be used for matching was included as a matching criterion if it had the following qualities:

1) Research in general appeared to confirm the utility of the suggestion.
2) The suggestion described characteristics of clients, and of therapists or therapy, that could be assessed in some practical way in the matching program.
3) The suggestion could be used in the matching system in a way that was not biased toward one or more particular systems of therapy.

Diagnosis x Treatment

For almost 50 years, psychotherapy researchers have been attempting to find interactions between diagnoses and systems of therapy that would indicate that certain methods of therapy were more effective than other methods for particular diagnoses. There is a well-supported movement within the psychotherapy establishment to list *empirically supported treatments* (EST's) which have been shown by research to work for specific diagnoses (Task Force on the Promotion and Dissemination of Psychological Procedures, 1995). After a thorough examination of the utility of using EST's for matching, it was concluded for the purposes of this project that, with a couple minor exceptions described below, they are not directly useful for matching clients to therapists. The primary reasons for this conclusion are the following:

1) EST's are based on studies that don't match clinical practice (Silberschatz in Persons and Silberschatz, 1998). EST's are in almost every case based on random controlled trials (RCT's), in which therapists follow manuals during their treatments. This may match reality for recently trained cognitive or behavioral therapists, but it certainly doesn't match reality for psychodynamic therapists, humanistic therapists, or experienced therapists of any type (Bohart, 2000; Strupp & Anderson, 1997). In addition, in RCT's the clients are homogenous in ways not normally seen clinically, clients are randomly assigned to therapists (Goldfried & Wolfe, 1998), therapists are trained and observed by researchers (DeRubeis & Crits-Cristoph, 1998), and therapies are all relatively short term and have set lengths that are independent of the results of the therapy (Goldfried & Wolfe, 1998).

2) A consistent finding from psychotherapy research is that the outcome of therapy is independent of the method of therapy for any diagnosis (Robinson, Berman, & Neimeyer, 1990; Stiles, Shapiro, & Elliot, 1986; Wampold et al., 1997). This is commonly called the "Dodo bird verdict" (Luborsky, Singer, & Luborsky, 1975; Rozensweig, 1936) after a race in *Alice in Wonderland* (Carroll, 1865/1960) in which the Dodo bird declared "Everybody has won, and all must have prizes." (p. 35).

3) The common factors, not techniques, are mainly what is curative in therapy. That is, the curative elements of psychotherapy reside primarily in factors they all have in common (Assay & Lambert, 1999; Hubble, Duncan, & Miller, 1999). If therapy is curative primarily through these common factors, then EST's are very misleading in implying that different methods and techniques should be used for different diagnoses. Some examples of these common factors are the instillation of hope (Frank and Frank, 1991; Snyder, Michael, & Cheavens, 1999), clients' capacity for self-healing (Tallman and Bohart, 1999), and the relationship between the clients and therapists (Rogers, 1957), usually called the therapeutic alliance.

The only utility accepted for EST's for the matching program was that certain treatments for two specific diagnoses have been so well supported by research, or possibly just so well researched, that it would make sense that any therapist to whom a client with that diagnosis was matched should have some method of implementing these treatments.

According to Ogles, Anderson, and Lunnen (1999), there have only been two problems for which specific techniques have been empirically demonstrated to be not only effective, but more effective than other known techniques. These problems and curative techniques are exposure for phobias, agoraphobia and OCD, and certain behavioral techniques for sexual dysfunction. Even strong supporters of other types of therapy indicate the possible usefulness of cognitive-behavior therapy for anxiety disorders (Elliot, Greenberg, & Lietaer, 2001). Therefore, it was decided that one matching criterion would be the two-part recommendations that:

1) Clients with phobias, agoraphobia, or OCD should be matched with therapists who had some method of implementing exposure treatments for these diagnoses, either by themselves or in collaboration with other therapists.

2) Clients with sexual performance problems should be matched with therapists who had some method of implementing behavioral techniques for these problems, either by themselves or in collaboration with other therapists.

Stage of Change

In the *transtheoretical model* of Prochaska and associates (Prochaska, 2000; Prochaska & DiClemente, 1992; Prochaska & Norcross, 2001), there are six defined *Stages of Change* involved in clients making changes in their lives. The first stage is *precontemplation*, in which clients are not intending to change in the near future (usually taken to mean in the next six months). The next stage is *contemplation*, in which clients are aware of a problem and would like to change within the next six months, but have not committed to changing. In the *preparation* stage, clients intend to change within the next month, and have taken at least some small step toward making a change. The *action* stage is where clients make changes that result in improvement. The fifth stage is *maintenance*, in which clients are working to maintain their changes, and avoid relapses. The final stage is *termination*, at which point the clients have completed their change, and do not have to worry about relapses.

The suggestions from Prochaska and associates that are most useful for matching are to use "experiential processes that produce healthier cognitions, emotions, evaluations,

decisions, and commitments" (Prochaska, 2000, p. 244) for people in earlier stages, and to use more behaviorally oriented treatments for people in later stages. Another suggestion is that therapists concentrate on preventing dropping out of therapy for clients in the precontemplation stage (Brogan, Prochaska, & Prochaska, 1999), as it was found that these clients were more likely to terminate their therapy prematurely. The implication for matching is that clients in early stages should not be matched to therapists who emphasize taking action, and clients who are in later stages should be matched to these therapists. In addition, clients in very early stages should be matched to therapists who concentrate on preventing premature termination.

In a roughly parallel method of analysis, Stiles and associates (Stiles et al.,1990; Stiles, 2001) have developed a model of therapeutic impacts based on stages of assimilation of problematic experiences by clients. In this model, problematic experiences are somewhere along the assimilation continuum of unassimilated, partially assimilated, assimilated, or applied. Stiles recommends using different types of therapy for clients at different stages. For clients at lower levels of assimilation, Stiles recommends using exploratory therapy types such as interpersonal, psychodynamic, or experiential. For clients further along the assimilation scale Stiles recommends methods of therapy more oriented to actively solving problems, such as cognitive and behavioral therapy.

The Stiles system was combined into the Prochaska system by assessing clients' stages of change, and then matching with therapists using the following recommendations:
1) The more action oriented the therapists, the more they should be matched with clients in later stages of change. Action orientation would consist of helping clients to take actions, helping clients to change cognitions, and helping clients to solve problems.
2) The more therapists usual or preferred methods of therapy involve experiential or exploratory techniques, the more they should be matched with clients in earlier stages of change.
3) The more the therapists concentrate on preventing premature termination, the more they should be matched with clients in the precontemplation stage of change.

Prescriptive Psychotherapy

General Description

Larry Beutler and his associates have been researching matching patients with therapeutic techniques for over 20 years (Beutler, Arizmendi, Crago, Shanfield, & Hagaman, 1983; Beutler, Rocco, Moleiro, & Talebi, 2001). In their latest version of their theory (Beutler & Harwood, 2000), the primary patient characteristics analyzed are resistance, coping style, level of experienced distress, and level of functional impairment. To a lesser extent, they analyze the patient characteristics of problem complexity and social support. They have developed a system of adapting therapy to these patient characteristics, which they call by the various names of Systematic Treatment Selection (Beutler & Clarkin, 1990), Systematic Eclectic Psychotherapy (Beutler & Consoli, 1992) and Prescriptive Psychotherapy (Beutler & Harwood, 2000). Because their recommendations involve matching patient and therapy characteristics in prescribed ways, these recommendations were useable in the matching system by attempting to match these patient characteristics to therapists' preferred or usual therapy methods. These patient characteristics will be discussed in the next four sections below.

Resistance

Resistance is the tendency to resist external demands (Beutler and Consoli, 1992). In therapy, this would indicate the tendency of the client to refuse to cooperate and change, rather than comply with the therapist. Beutler and associates believe that the less client resistance is activated, the better the outcome for therapy (Beutler et al., 1991; Beutler & Harwood, 2000). They suggest that therapy directiveness should be inversely related to client resistance. Beutler, Rocco, Moleiro, and Talebi (2001) have reviewed outcome studies of the interaction between client resistance and therapist directiveness, and maintain that these studies demonstrate that the more resistant the client, the less therapist control, structure and directiveness there should be. Beutler and associates particularly recommend paradoxical interventions for clients with high resistance (Beutler & Harwood).

Coping Style

Coping style refers to the way in which a client copes with stress and interacts with

other people (Beutler, Arizmendi, Crago, Shanfield, & Hagaman, 1983; Beutler, Rocco, Moleiro, & Talebi, 2001). Beutler and associates have focused on what they believe is the most relevant aspect of coping style, which is the difference between externalization and internalization. Externalizing people blame other people or external objects for their behavior or problems, while internalizing people blame themselves (Beutler & Consoli, 1992). Beutler & Harwood (2000) believe these are enduring traits in people, in whom one of these coping styles predominate to various degrees. They characterize externalizers as socially active, aggressive, and undercontrolled, with tendencies to overindulge, overreact, avoid confronting problems, and have excessive behavior that leads to interpersonal problems. Internalizers tend to be over-controlled, self-critical, shy, withdrawn, worried, and inhibited (Beutler, Brookman, Harwood, Alimohamed, & Malik, 2001). For externalizing patients, treatments are recommend that focus on external behavior (Beutler, Mohr, Grawe, Engle, & MacDonald, 1991) or on changing symptoms (Beutler & Harwood), independently from any introspection by the patients. For internalizing patients, treatments are recommend that emphasize insight, self-knowledge, self-understanding, awareness, and emotional arousal (Beutler & Consoli, 1992; Beutler & Harwood, 2000).

Level of Distress and Impairment

Beutler and Harwood (2000) believe patients' *levels of distress and impairment* are important for therapy because there are ideal amounts of emotional stress for patients in therapy, based on their levels of distress and impairment at various times. They believe therapists should increase or decrease affective arousal during therapy based on these levels in order to maintain a level of arousal intense enough to motivate the client to change, but not so intense that it defeats the therapy. Beutler and Consoli (1992) suggest that patients with low levels of distress and impairment may in general be best suited for therapy that treats symptoms only, as they may have little motivation for anything deeper. These theories seem to suggest that clients with low levels of distress and impairment should be matched to therapists whose treatments involve high levels of emotional intensity, and vice versa. For example, Beutler and Harwood suggest experiential methods for unmotivated patients. Finally, Beutler and Harwood suggest that patients with extremely high levels of distress and

impairment be given therapy at first that emphasizes support and anxiety reduction.

In a study with relevance to this area, Cooney, Kadden, Litt, & Getter (1991) found that clients with more severe problems may do better in more structured therapy.

Problem Complexity and Social Support

Beutler and Consoli (1992) suggest that simple problems, or problems that are situation specific, may be easily solved with therapy that focuses on symptom relief. Complex problems may require therapy that is broader. In addition, Beutler, Brookman, Harwood, Alimohamed, and Malik (2001) maintain that the more complex clients' problems, and the less social support they have, the higher their levels of distress and impairment will be. This implies that the same suggestions for matching clients with treatments based on levels of distress and impairment described in the section above could be used to match clients with treatments based on problem complexity and level of social support.

Richards (1999) suggests that time limitations would not be a good idea for clients whose problems are the result of early relationship failures, as the essential element of their therapy is the relationship that develops with their therapist over time. She also suggests time limitations being less indicated for clients with complex problems, or clients without much social support. These suggestions for absence of time limitations imply that therapy should be less oriented toward immediate symptom relief, and more oriented toward depth.

Addis and Jacobson (1996) found that the more possible reasons clients gave for being depressed, the worse they did in action oriented treatment. This would support the idea that complex problems, or lots of problems, require more therapy depth than directly trying to change behavior.

These suggestions were combined into the recommendation that the more complex clients' problems, the less social support they have, and the worse their early relationships were, the more they should be matched with therapy that is less action oriented, is less time based on a small fixed number of sessions, and that has the possibility of increased depth over time.

Findings from Project Match

Project Match was a multi-site research study which investigated the interaction of 21

different attributes of alcoholic clients matched to three different types of treatment: Motivational Enhancement Therapy (MET), Cognitive-Behavioral Therapy (CBT), or Twelve-Step Facilitation therapy (TSF) (Project Match, 1998). These treatments were done as manualized individual therapy. Most attributes did not show significant interaction effects. However, the study did indicate the following two effects with which the researchers had strong confidence :

1) Clients high in anger did better in MET than in the other two treatments. The researchers hypothesized that MET worked well with angry clients because it was nonconfrontational and less likely to provoke them.

2) Clients whose social network was more supportive of drinking did better with TSF than with MET. The researchers hypothesized this was because TSF attempts to get clients involved in Alcoholics Anonymous, which replaces social networks that support drinking with social networks that don't.

Based on these findings, it was decided for the matching system to determine if clients had alcohol or other addiction problems, and if so, if they had social networks that supported these addictions. Clients meeting both of these criteria should then be referred to therapists who work with twelve step programs, or to therapists who have other methods of replacing these social networks with more benign ones. It was also decided that especially angry clients should be referred to therapists who practice therapy that is particularly non-confrontational, such as MET. It was assumed this latter matching method transcends diagnoses, and can be used with all clients, not just those with addictions.

Client Tolerance for Treatment Complexity

In a study of matching clients with either a complex coping skills training or a relatively unstructured interpersonal therapy, Cooney, Kadden, Litt, and Getter (1991) found that patients with high cognitive impairment had better outcomes in interpersonal therapy, and those with low cognitive impairment did better in coping skills training. They hypothesized that the coping skills training was too complex for cognitively impaired clients. It does seem reasonable that clients would have different tolerances and preferences for complexity in therapy. It was decided that the matching system would assess clients on these

characteristics, and likewise assess therapists on the complexity of their treatments, and match them accordingly.

Clients' Perceptions of Reality

Goldfried (1991) found that therapists using different systems of therapy tended to have different ways of perceiving and communicating client's perceptions of reality. Cognitive-behavioral therapists communicated to clients that things were not as bad as the clients thought, while psychodynamic-interpersonal therapists communicated that things were worse than the clients thought.

It may be that clients with strong misperceptions of reality in a particular direction would be helped most by therapists who tended to communicate perceptions of reality in the opposite direction, thus helping the clients to correct their perceptions. In other words, a client who saw things as much worse than they really were might be helped most by a therapist who tended to communicate to clients that things were better than they really were. On the other hand, a client who had problems that he or she was having trouble acknowledging might be helped most by a therapist who tended to communicate that things were worse than the client perceived.

Although there has not been any confirmation of these findings in the literature, they were interesting enough to be included in the matching system, although with low emphasis. It was decided that therapist tendencies should be determined through individual questions relating to styles and beliefs, rather than through systems of therapy practiced.

Anaclitic and Introjective Dimensions

Blatt, Shahar, and Zuroff (2001) describe a related concept to Beutler and associates' concept of "coping style," pertaining to personality development. They believe people's self-identity needs and relationship needs compete. In normal development, these needs are balanced, but in psychopathology, one or the other predominates. They define *introjective* patients as preoccupied with issues relating to their sense of self, self-worth, autonomy, and control. In contrast, *anaclitic* patients are overly focused on relationship issues such as intimacy, trust, and sexuality.

In terms of psychotherapeutic differences, Blatt et al. found that anaclitic patients had

better outcomes in psychotherapy than in psychoanalysis, while introjective patients had better outcomes in psychoanalysis than in psychotherapy. They proposed that introjective patients, who are concerned with separateness, prefer less direct interactions with their therapists, and anaclitic patients, who are concerned with relationships, prefer more direct interactions. In addition, they found that introjective patients, who tend to be perfectionistic and self-critical, have relatively more trouble developing relationships with their therapists, and tend to drop out of therapy prematurely. They recommended that therapists take more time and care developing therapeutic alliances with these patients.

In light of these findings, it was decided that the matching system should try to match introjective clients with therapists who are less direct and take more care and time in developing the therapeutic relationship. In addition, introjective clients should be matched to therapists who practice therapy that tends to be less time limited. Anaclitic clients should be matched to therapists who are more direct and openly friendly.

Five-Factor Model of Personality

Several theorists believe that many of the personality aptitudes being studied in psychotherapy outcome research can be better described using just five orthogonal personality traits, commonly known as *the five-factor model* (Anderson, 1998; Wallach, 2000). These five factors have been labeled Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness (Costa & Widiger, 1994).

The significance of this model is that it is associated with several very specific suggestions for client-therapy matching. One set of suggestions come from Miller (1991), who studied his own patients using this model over a period of two years. Although his suggestions are aimed at therapists individualizing their treatments based on patient characteristics, there are a few ideas that are translatable into the matching system. Another set of suggestions comes from Anderson (1998), based on his review of the five-factor literature. These suggestions are combined to produce the matching ideas described below. The descriptions of the meaning of the five factors given below are from Digman (1990), Buchanan (2002), and Wallach (2000).

Neuroticism (N) measures emotional instability and distress, anxiety, and insecurity.

Clients low on N do well with pharmacology, and in brief therapy that focuses on symptoms, very specific problems, and advice. In contrast, clients with high N don't do well with pharmacology, interpersonal therapy, or symptom-focused therapy, and need longer term therapy that focuses on conflicts and generic patterns of behavior, such as mood regulation.

Extraversion (E) reflects preference for interpersonal interactions and social situations, and being outgoing versus being introverted. Clients low on E do best with individual therapy that includes structured approaches. High E clients respond well with less structured approaches, interpersonal therapy, and group therapy. According to Miller (1991, p. 426), the more "spontaneous speech and social interaction" required by the therapy, the higher E should be for clients.

Openness (O) measures openness to new experiences, appreciation of culture and art, imagination, creativity, and rebelliousness. The higher clients are on O, the more their therapy should be provocative, imaginative, involve novel thinking and experiences, focus on self-exploration and discovery, and/or involve paradigm shifts. The lower clients are on O, the more their therapy should be straightforward, practical, symptom focused, educational, and supportive.

Agreeableness (A) reflects friendliness, compassion, cooperativeness, and, in the opposite direction, antagonism and hostility. High A clients may prefer group therapy and interpersonal therapy, while low A clients should do better in individual therapy that has a relatively high focus on symptoms and support, and has low levels of direct confrontation.

Conscientiousness (C) measures organization, persistence in pursuing goals, focus, self-discipline, and motivation. Both Miller and Anderson agree that therapy is relatively easy with clients high in C. Therapy for clients with low C should avoid treatments that require hard work, and should include as little discomfort as possible. Homework should probably not be included. Low C clients might do better with highly structured therapy, behavioral therapy, and skills training.

Affiliation and Control

There is a line of theory and research that has been investigating complementarity between two people based on the orthogonal dimensions of affiliation and control for over 40

years (Berzins, 1977; Kiesler, 1992). *Affiliation* refers to friendliness, and ranges from very hostile to very friendly. *Control* measures dominance versus submissiveness. The theory related to these concepts is that people have complementary relationships when they are opposite on control, and similar on affiliation. That is, dominant is complementary to submissive, submissive to dominant, friendly to friendly, and hostile to hostile. The relevance to matching is the hypothesis that complementary relationships between patients and therapists lead to more positive therapeutic alliances (Kiesler, 1992). In other words, dominant therapists should be matched to submissive patients, submissive therapists to dominant patients, friendly therapists to friendly patients, and hostile therapists to hostile patients.

There is some research evidence that this type of matching in therapy would be beneficial (Berzins,1977; Kiesler, 1992; Talley, Strupp, and Morey, 1990).

Attachment Style

Attachment theory is one of the most widely accepted systems for analyzing and understanding human relationships (Slade, 1999). According to this theory, individuals relate to other important individuals in their lives in one of three ways: with *secure* attachment (sometimes called *autonomous*), with *avoidant* attachment (sometimes called *dismissing*), or with *ambivalent* attachment (sometimes called *preoccupied*) (Dolan, Arnkoff, & Glass, 1993; Holmes, 1997; Slade, 1999). Avoidant people are overly self-reliant, have minimal expressions of affect, deny desires for love and support, are distrustful of affection, keep a safe distance from others, and avoid passionate relationships. They have difficulty remembering their life stories. Ambivalent people are the opposite. They are overly dependent on attachment figures, are afraid to let them go, and have strong yearnings for love, support, and affection, although they don't trust the permanence of these things. They have little regulation of feelings related to attachments, and their life stories tend to be rambling and incoherent. Securely attached people are in the middle. They are able to trust relationships, ask for support when needed, and give and accept love and dependency. Their affects are well regulated, and they are optimistic about attachments.

According to Holmes (1997), therapists have their own styles, and some will be better

than others at different methods. Holmes suggests that avoidant patients need an attuned, following, warm, flexible "holding" type of therapy. Ambivalent patients, on the other hand, need a firm, consistent therapy with clear boundaries. Holmes specifically suggests that therapists who are better at attunement and empathy would be more suited to treating avoidant patients, and therapists who are better at structures and boundaries would be better matched with ambivalent patients. Slade (1999) recommends that for avoidant clients, therapy should help them experience, or get more in touch with, their emotions. Therapists should also find ways to connect emotionally with these clients. In contrast, Slade suggests that for ambivalent clients, therapy should concentrate on structures for organizing and containing overwhelming feelings. Slade also suggests that avoidant clients do not do well in short-term therapy, and ambivalent clients do not do well in therapy in general.

For the matching system, these suggestions were combined into the following recommendations:

1) Avoidant clients should be matched with attuned, following, warm, flexible "holding" type of therapy; ambivalent clients should be matched with firm, consistent therapy with clear boundaries.

2) Avoidant clients should be matched with therapy that gets them more in touch with their emotions, and with therapists who emphasize connecting emotionally with clients; ambivalent clients should be matched to therapy with more structure.

3) Avoidant clients should be matched with longer term therapy; ambivalent clients should be matched with shorter term therapy.

Gunderson's Personality Dimensions

Gunderson (1978) studied the effect on outcome of various personality matches between therapists and schizophrenic patients. His major finding was that therapists who were composed, contained, and stable, as opposed to frenetic and disorganized, did particularly well with anxious patients. His second major finding was that therapists who were comfortable with aggression had good results with hostile patients. He also found that therapists who were very comfortable with depression from a personal standpoint did well with depressed patients. From his study results, he also proposed that a charismatic or very

optimistic therapist could be intimidating to a patient with a strong sense of failure. Although this study was only with schizophrenic patients, the results were clear enough and seem intuitively obvious enough that they warranted a try in the matching system.

MATCHING BY CLIENT PREFERENCES

Matching by Client and Therapist Similarities

At first glance, the idea of matching clients to therapists who are similar seems obvious. It is widely believed that clients will be more comfortable with therapists they perceive as similar (Beutler, Machado, & Neufeldt, 1994), that such matching improves the therapeutic relationship and increases the chance of therapy working in the early sessions (Luborsky, Crits-Cristoph, Alexander, Margolis, & Cohen, 1983), and that it lessens the chance of clients quitting therapy prematurely (Van Audenhove & Vertommen, 2000). In addition, there is the less widely believed idea that therapists will better understand similar clients ("it takes one to know one"). Unfortunately, when matching by similarity is tested by research, the majority of studies do not find these expected benefits. These research results are discussed in more detail in some of the sections below. The general conclusion for this matching system was that, for every characteristic of therapists and clients where matching could be done by similarity, matching should be done by client preferences instead.

Support from Multimodal Therapy for Matching by Preferences

Arnold Lazarus (1992) has created a system of matching therapy treatments to patients' assessments according to a method which he calls *Multimodal Therapy* (MMT). Although this is a very thorough and complete system which has been studied and accepted as a method of matching treatments to patients by researchers and clinicians, it is not appropriate for this matching system for two reasons. First, it is a complete self-contained system, and could only be used for referrals by adopting the system in whole. Second, this system appears to be almost completely cognitive-behavioral, and as discussed above, one of the conditions for any matching criteria for this matching system was that it not be biased toward any system of therapy.

However, Lazarus does make a suggestion for matching that has applicability regarding client preferences. He suggests that the most beneficial method of matching clients

with therapists and therapy methods is from the answers by clients to three questions from his Multimodal Life History Inventory: “In a few words, what do you think therapy is all about?” “How long do you think your therapy should last?” and “What personal qualities do you think the ideal therapist should possess” (Lazarus, 1992, p. 242). These answers are in narrative form in this instrument. The matching system in this study attempted to obtain similar information from clients about these preferences through various questions in the client questionnaire, and match according to the correspondence with similar questions in the therapist questionnaires.

Preferences for Therapist Characteristics

Therapist Demographics

According to Atkinson and Schein (1986), the primary types of membership group and experience similarities relevant to psychotherapy are gender, race or ethnicity, age, physical ability, socioeconomic status, treatment experiences, and sexual orientation. Research has not supported benefits of matching by these similarities.

Nelson (1993) reviewed studies on the effect of gender differences, and found conflicting results that lead to no clear conclusion. Some studies found that same-gender pairings produced better results, while other studies found that opposite-gender pairings produced better results. There was some indication that men and women do better with female therapists. This was especially true for female clients. However, the results from these studies were weak, with small effect sizes. Bowman (1993) also reviewed studies on the effect of therapist sex on outcome, and came to similar conclusions. The only consistent research finding is that female clients tend to do slightly better with female therapists. Finally, Beutler, Machado and Neufeldt (1994) also found no meaningful evidence from research that matching by gender improves outcome, although there was some weak evidence that female clients have slightly better results with female therapists. The conclusion from these three reviews is that referrals could have a very slight tendency to match female clients with female therapists, but without strong client preference for this match, this criterion would be overshadowed by the combination of all other criteria. Therefore, it was concluded that matching by gender in the matching system should be done by preference only.

For homosexual clients, there are possible advantages and disadvantages of referring to therapists with the same sexual orientation. According to Cabaj (1996), the advantages may include more immediate rapport, more confidence in the client being accepted and understood, and more possibility of the client having a sense of safety and trust. Possible disadvantages are a feeling of competition between the client and therapist, and an overemphasis on sexual orientation to the exclusion of all other parts of the client's life. It is important to remember that there is no research evidence supporting the benefit of referral based on similarity in sexual orientation. However, it is certainly important that a homosexual client not be referred to a therapist who is either uncomfortable with homosexuality or who has a tendency to see homosexuality as a problem whether or not the client sees their sexual orientation as a problem (American Psychological Association Division 44 Committee, 2000). It was concluded that matching in this area should be done by client preference.

Reis and Brown (1999) reviewed studies on clients who terminated therapy before their therapists thought they were ready. Although they found that two consistent predictors of this early termination were low socioeconomic status and minority background, they also found that matching clients and therapists by ethnic background and socioeconomic status did not produce less early termination.

Beutler, Machado, and Neufeldt (1994) reviewed studies of effects on therapy of similarity or dissimilarity of clients and therapists on the characteristics of age, sex, and ethnicity. They concluded that there was no convincing evidence that any of these elements had a significant impact on therapy outcome.

In an extensive review of many different possible ways of matching clients and therapists by similarity, Atkinson and Schein (1986) only found significant effects related to client preferences. The conclusion for this matching system is that similarities between clients and therapists on membership groups and experiences should be considered only in terms of client preferences.

Therapist Religion and Spirituality

Although religious background and current religious activity could be considered

traits for matching by membership group and experience similarity, or therapist demographics, as discussed in the section above, these characteristics are important enough to deserve their own section. The majority of people believe they are religious to some degree, and the majority of psychologists believe that religion and spirituality are valuable and relevant (Shafranske, 1996). Lukoff, Provenzano, Lu, and Turner (1999) make a strong case for integrating religion or spirituality into psychotherapy, possibly through referrals or collaboration by therapists with religious or spiritual experts. In Tjelveit's (1986) thorough discussion of ethical considerations related to value conversion, the main situation for which referrals were recommended was problems requiring religious or moral expertise.

The matching system incorporates the idea that matching clients' preferences for therapists' religious and spiritual expertise, beliefs, and values with therapists' self-descriptions on these characteristics is adequate to solve all referral issues in this area.

Therapist Values

Beutler, Arizmendi, Crago, Shanfield, & Hagaman (1983) studied the effect of the interaction of values of patients and therapists. Values were measured using the Rokeach Value Survey (Rokeach, 1973), which asks individuals to arrange18 instrumental values (modes of conduct) and 18 terminal values (end states of existence) in order of importance. They found that initial similarity in values had no significant effect on outcome on any of their measures. Their most significant finding was that initial value dissimilarity led to value convergence, and value convergence was associated with the therapists' ratings of patient improvement, although not with the patients' ratings. Arizmendi, Beutler, Shanfield, Crago, & Hagaman (1985) carried out a similar study, and had a more specific result. They found that differences in terminal values led to improved outcome as judged by therapists, while similarities in instrumental values produced better outcomes. However, none of the negative correlations (dissimilarity = improvement) of terminal values were confirmed by client ratings, and the only positive correlation (similarity = improvement) for instrumental values that was indicated by both patient and therapist ratings was similarity in courage (p. 19).

Kelly (1990) reviewed 100 studies of the effect of values on psychotherapy, and came to similar conclusions. This may be, however, because most of the good studies on this

subject are by Beutler and his associates. Kelly also concluded that there was a complex interaction of exactly what specific values were being studied, what outcome measures were being used, from whose perspective outcome was being measured, and possibly the type of therapy.

The finding that value dissimilarity leads to value convergence seems overly obvious, as the more different values are to start with, the more room there is for them to move toward each other. (This is roughly similar to the concept of regression toward the mean in statistics (Howell, 1997)). The finding that therapists felt that value convergence led to more improvement is potentially important for referrals. However, it is weakened by the fact that the clients didn't have the same ratings, and by the complex interactions described by Kelly. In addition, one would need a tremendous amount of extra knowledge to know exactly how to use this information. Is this finding an anomaly, or is initial value dissimilarity truly beneficial? Exactly how much initial dissimilarity in which values is beneficial? Are the therapists' ratings based only on the impression of improvement due to changes in the clients' values? If these changes in client values are real, are they a cause of improvement, or an effect? These results are extremely preliminary, and almost impossible to translate into a useable part of a referral system. In addition, a strong case can be made that value conversion by therapists has serious ethical problems (Tjeltveit, 1986).

The conclusion for this study is that neither initial value similarity nor dissimilarity should be used as a criterion in my referral system. Instead, the matching system relies on client preferences. This decision is supported by the findings of Beutler, Pollack, and Jobe (1978) that patients' initial acceptance or rejection of their therapists' values had a significant effect on the patients' satisfaction with therapy. In addition, it is generally considered important for ethical reasons for clients to be given the right to know, discuss, and express preferences for their therapists' values (McMinn, 1984). Considering the ethical danger of value conversion, and the research evidence that this conversion is widespread, it could be considered a type of *informed consent* to make the possibility of this type of conversion known to clients and allow them to express preferences for their therapists' values (Tjeltveit, 1986).

Therapist Styles or Forms of Empathy

Although there is an almost universal acceptance that empathy is important in therapy, and even research support for this importance (Greenberg, Elliot, Watson, & Bohart, 2001), there is some evidence that there are different styles or types of empathy (Messer and Winokur, 1980). In a study that is very relevant to a system or referrals, Bachelor (1998) analyzed clients' preferred styles of empathy received from therapists, and discovered four different preferred styles. Bachelor named the four styles of perceived empathy Cognitive, Affective, Sharing, and Nurturant. Cognitive empathy is the client's perception that the therapist understands the client's thoughts, and experiences. Affective empathy is the client's perception that the therapist feels the same emotions that the client is feeling. Sharing empathy occurs when the therapist discloses to the client that the therapist has experienced a similar situation or feeling. Nurturant empathy is the client's perception that the therapist is supportive and attentive, and is providing security for the client. This study implied that the more a therapist's actual style of empathy matched a client's preferred style, the more empathic and helpful the therapist would be perceived by the client. It was concluded that the matching system should attempt to match clients to therapists according to the clients' preferences in this area.

Epistemological Styles

There is an existing system of describing and assessing epistemological styles that appeared to be useful for the matching system. This is the Psycho-Epistemological Profile (PEP), developed by Royce and Mos (1980). This instrument measures people according to three different world views or ways of knowing: Rationalism, Empiricism, or Metaphorism. *Rationalism* focuses on cognitive processes and tests truth through clear thinking and logical consistency. *Empiricism* focuses on the senses and external experiences, and tests knowledge through perceiving correctly with reliable and valid observations. *Metaphorism* focuses on symbols and metaphoric experience, and believes the validity of knowledge is dependent upon the "degree to which symbolic cognitions lead to universal rather than idiosyncratic awareness" (Royce & Mos, 1980, p. 5). The PEP questionnaire contains 90 questions, and produces a rating of preferences on each of the three dimensions. These three ratings are

independent of each other.

There was research evidence that the PEP would be useful for differentiating therapists in a practical manner. For example, Schacht and Black (1985) used the PEP to measure the epistemological commitments of psychoanalytic and behavioral therapists, and found that these different groups of therapists did have different profiles on this instrument. Vincent and LeBow (1995) used the PEP to investigate clients' preferences for therapists. Their hypothesis that clients would prefer therapists who had similar epistemological styles to those of the clients was not upheld. However, it does appear that clients were able to use the PEP to express preferences for therapists.

A related concept to epistemological style is discussed in a study by Lyddon and Adamson (1992), who differentiated therapies according to the degree to which they coincide with either a mechanistic or organismic metaphorical worldview. The mechanistic metaphor is of the world being like a machine, with discrete parts that interact in a cause and effect manner. The organismic metaphor is of the world in a developmental and organic process, which is discontinuous and nonlinear. Lyddon and Adamson found a significant interaction between clients' worldviews according to this system, and their preferences for types of therapy.

It was concluded that an attempt should be made to match clients with therapists according to clients' preferences for the epistemological styles of their therapists.

Preferences for Characteristics of Therapy

General Considerations

There is strong evidence that allowing clients to select therapists based on the clients' preferences for characteristics of therapy improves outcome. After reviewing studies of the effect on outcome of accommodating client preferences, Glass, Arnkoff, and Shapiro (2001, p. 460) concluded "clients who receive a treatment they believe in and prefer may be more likely to engage early in therapy, work hard, and comply with and continue in treatment, leading to better outcome." In a study using a system called "the negotiation approach," Van Audenhove and Vertommen (2000) found that clients who were educated and informed about their therapeutic options, and then allowed to choose their types of therapy and their

particular therapists, had lower dropout rates from therapy than other clients. The Consumer Reports survey on psychotherapy (Seligman, 1995) indicated that clients who actively tried to choose among therapists by asking friends for recommendations, asking therapists questions about their qualification, experience, etc., and checking out more than one therapist, did better than clients who were passive in their choice of therapist. Luborsky, Crits-Cristoph, Alexander, Margolis, & Cohen (1983) found that the Helping Alliance was significantly worse in therapeutic relationships resulting from random assignment of clients as opposed to clients assigned by therapist preferences. Other studies have also shown that clients' involvement in decisions about therapies and therapists improves outcome (Frances, Sweeney, & Clarkin, 1985).

It was concluded that the matching system should match clients preferences for characteristics of therapy with therapists usual emphasis or methods of treatment. In addition to general characteristics of therapy, there were two specific areas that were given special attention: therapy time and depth, and attitudes about medication.

Therapy Time Limitations and Depth Considerations

Time limitations in therapy is related to, but not identical with, therapy depth, in that the more depth desired, the more time required. However, some systems of therapy allow clients to go as deep as they desire, and other systems by their nature remain at the depth at which they start. For example, a client who is referred to behavior therapy has no opportunity to decide to remain in therapy for a long term depth therapy. On the other hand, a client who is referred to a short term psychodynamic therapy could turn it into a long term depth therapy and even into a psychoanalysis (Gann, 2000).

Psychopharmacology

Studies comparing psychotherapy and pharmacotherapy within diagnoses have in general not found any preferential effects for either (Beitman, Hall, & Woodward, 1992; Elkin, 1994). Studies comparing differential effects between psychotherapy and pharmacotherapy according to client aptitudes are so preliminary, and the findings so complex (Dance and Neufeld, 1988), that the results are almost impossible to use in the matching system. It would be wonderful if a referral system could help clients decide the

relative amounts of psychotherapy and pharmacotherapy to use. Unfortunately, there isn't enough information available to do this.

The best that can be done at present is to match clients according to their preferences for therapists' attitudes regarding medication for psychological problems.

MATCHING CHARACTERISTICS NOT USED

Personality Similarity or Preference

Berzins (1977) reviewed all studies of matching by personality similarity up to about 1976. . His conclusion was that matching by similarity or dissimilarity did not work. One of the methods of matching reviewed by Berzins was matching using the Fundamental Interpersonal Relations Orientation - Behavior Scale (FIRO-B), which was created by Schutz to measure interpersonal compatibility on needs for inclusion, control, and affection. Berzin's conclusion for FIRO, after reviewing all studies through 1976, was that the studies all had some positive results, but the results were contradictory, and no sweeping conclusions could be drawn. There do not appear to be any recent reports of attempts to use the FIRO for client-therapist matching. It seems it has gone our of favor, or wasn't effective enough to keep researchers interested.

In Berzin's review of other personality matching studies, involving the Myers-Briggs, and other tests, he concluded that no matching by personality similarity showed any promise. The method that he thought was most promising was matching by Leary's Interpersonal Circle. This was used in this matching program, and is discussed above in the section on Affiliation and Control.

There is some indirect evidence that personality similarity between clients and therapists might benefit therapy. For example, Skoe and Ksionzky (1985) carried out an analog study in which subjects sorted personality characteristics of people to whom they disclosed the most, and disclosed the least, This sorting was done using a Q-sort technique, in which 100 descriptions of personality characteristics were sorted into categories ranging from least to most characteristic. In addition, the subjects sorted the same characteristics for self-descriptions ranging from least to most characteristic. The results seemed to show that people disclosed the most to other people who were most similar to themselves in

personality. However, this study didn't analyze how much the subjects actually disclosed, but instead asked them to think of a person to whom they disclosed the most and a person to whom they disclosed the least, and use the sorting technique to describe those persons.

Research on client-therapist matching by similarity often has the rationale that clients will be more comfortable with therapists they perceive as similar (Beutler, Machado, & Neufeldt, 1994). However, Berry and Sipps (1991) found that clients with low self-esteem were more likely to terminate therapy early with therapists who were similar to them on the Myers-Briggs Type Indicator (MBTI). Their rationale was that clients who devalued certain characteristics in themselves would devalue the same characteristics in similar therapists. This indicates that there is a complex interaction between similarity and client comfort.

The major problem for matching by psychological similarity or dissimilarity is that there are so many different ways to assess personality characteristics. The FIRO seemed promising, as it was created to measure compatibility, but it didn't prove to be effective. No other studies of matching using personality have been convincing or replicated. Psychotherapy research now concentrates on matching client personality characteristics with interventions. None of the recent reviews on matching clients and therapists by similarity discuss matching by psychological similarity or dissimilarity. Researchers seem to have been concentrating on demographic similarity (e.g., race), which has also not been shown to have any reproducible effect.

The original intent for this matching system was to include a section on matching by client preference for therapist personality characteristics. This idea was abandoned because no way could be found to describe therapist personalities that was simple enough to fit into the time and space constraints of the client questionnaire.

Matching by Tendency to Use Visual Imagery or Verbal Self-Statements

Vallis and Bucher (1986) tested the effects of matching clients' tendencies to use either visual imagery or verbal self-statements in stressful situations with cognitive-behavioral therapies that relied on one or the other of these types of training. This seems to be a common-sense method of matching, and according to Vallis and Bucher, has a history of other research, with some studies showing interactions, and others showing no interactions.

Unfortunately, the interactions found in this study were extremely complex and specific, and depended on the exact measurement scale used. Assessment of cognitive style of coping with fear showed interactions, but not styles of coping with anger. In addition, there were no interactions for general verbal or visual traits. In other words, this result could only be used to match clients with specific fear coping strategies to specific types of cognitive-behavioral therapy. This would not have fit into the matching system, where general and wide ranging interactions were needed.

Matching by Physiological Reaction Tendencies

Gross and Fremouw (1982) studied the interaction of clients' different styles of physiological reactions as measured by biofeedback with either progressive relaxation or cognitive restructuring. Despite showing some interaction effects, these results aren't useful for the matching system because of the difficulty of integrating the assessment method (biofeedback) into a system and because of the specificity of the treatments.

Matching Based on Client Deficits

There is a small amount of research that focuses on matching client deficits with treatments to overcome these deficits (Dance & Neufeld, 1988). Sometimes these deficits are extremely obvious, such as social skills deficits. Sometimes these deficits are more specific to therapy systems, such as cognitive deficits (Dance & Neufeld). There is some evidence for benefits of matching this way, but all the research appears to be related to cognitive-behavioral therapy, and to training to overcome these deficits. Because this matching system attempted to not be biased toward any therapy system, it was decided to not include this method of matching.

Matching Based on Quality of Object Relations and Psychological Mindedness

Piper, Joyce, McCallum, Azim, and Ogrodniczuk (2002) reported on a very elaborate and complete study that investigated the interaction of clients' *quality of object relations* (QOR) and *psychological mindedness* (PM) with either interpretive or supportive short-term psychodynamic therapy. Quality of object relations is "a person's internal enduring tendency (lifelong pattern) to establish certain types of relationships that range along an overall dimension from primitive to mature" (Piper, Joyce, Hassan, Azim, & Rosie, 1994, p.381). It

was determined through structured interviews that last one to two hours. Psychological mindedness was assessed through an evaluation of a patient's attributions of psychological components to other peoples' situations.

The results of this study supported the hypothesis that patients higher in QOR did better in interpretive therapy, and patients lower in QOR did better in supportive therapy. PM did not interact with type of therapy in a similar manner. The researchers specifically suggest that patients be evaluated on QOR, and patients high in QOR be matched with interpretive therapies, while patients low in QOR be matched with supportive therapies. Because assessment of QOR is so time consuming, the researchers suggest it be assessed as part of "routine clinical procedures such as history taking" (p.119).

This method of matching was not included as part of the matching system because QOR seems so difficult to assess. The assessment is very specific, takes at least an hour, and requires training to administer. As an alternative method, a client's QOR may or may not correlate with a subjective judgment of how well the client gets along with other people. Piper et al. don't suggest any alternative assessment instruments, or describe any correlations of QOR with other personality characteristics that could be assessed with different instruments. Until a method becomes available to assess QOR quickly and easily, it would be too difficult and time consuming to add this criterion to the matching system.

CHAPTER 3: QUESTIONNAIRES AND MATCHING FORMULAS

QUESTIONNAIRE SIZE AND TIME CONSTRAINTS

To understand the process of creating the matching program, it is necessary to understand how the actual process of matching clients to therapists was envisioned. This process was intended to consist of the following steps:

1) A database of at least twenty therapists would be built up by having therapists participating in the study take the computerized therapist questionnaire.

2) A client to be matched would then take the computerized client questionnaire.

3) A computer program written by the researcher would then use the clients answers, and compare them with each therapist's answers in the therapist database by using matching formulas. This would produce a numerical matching rating for this client for each therapist.

4) The computer would then display and print out a list of therapists, in order of how well they were matched, with their numerical match ratings listed.

It was expected that most therapists would take their questionnaires in their offices on a portable computer system consisting of two linked notebook computers, one for the therapist and one for the researcher. This system is described in more detail in Chapter 4. It was expected that therapists would be more willing to participate if the whole process of the researcher coming to the office, everyone getting settled, the researcher setting up the computer system, the therapist taking the questionnaire, and the researcher then taking the computer system apart and leaving, could all be accomplished in between the therapist's clients. This means that the maximum time for this whole process had to be less than one hour. This put the time constraint on the therapist questionnaire that a slow therapist had to be able to finish it in no more than 45 minutes.

The time constraint for the client questionnaire was not as severe. The intention was that clients would take their questionnaires on the fixed system in the researcher's office, which is described in Chapter 4. The hope was that the process of explaining the matching system to clients, having them take their questionnaires, the computer matching them to therapists, printing out therapist match ratings for them, and deciding with them what therapist or therapists they should try, could all be done in one long session of one and one-half hours

or less. This meant that the client questionnaire had to be designed so it could be finished by most clients in less than one hour.

STEPS IN CREATION OF THE MATCHING PROGRAM

After the matching criteria were chosen, creation of the matching program involved the following steps:

1) Assigning point values to the matching criteria.

1) Developing questions to ask clients and therapists, or finding suitable existing assessment instruments, to enable matching according to the matching criterion.

2) Creating computerized questionnaires for clients and therapists that these questions or instruments would fit into.

3) Creating databases to hold the information from therapists and clients who took the questionnaires.

4) Developing matching formulas to match clients to therapists based on their answers in their questionnaires.

5) Pilot testing each of these steps as they occurred and throughout the entire process.

The first step was to divide the matching criteria into two groups: criteria related to client characteristics, and criteria of client preferences. The point allocation process started arbitrarily with the decision that each matching criterion would be worth 20 points, and that equal weight would be given to client characteristics and client preferences. However, most matching criteria contained several matching recommendations. In addition, some criteria had more research support, or were more convincing for other reasons, than other criteria. The final point system developed for the matching criteria, which accounts for these factors, is described below

Developing appropriate questions or finding suitable existing instruments was an iterative process of writing questions and trying instruments for each criterion, and then seeing which of these could be combined or used for other criteria to make the questionnaires short enough to be easily finished in the allotted times. It became apparent very early in this process that there wasn't nearly enough room to fit all the desired questions and instruments into the questionnaires. Since dropping any matching criteria was considered unacceptable,

the only option was a combination of finding shorter assessment instruments, condensing existing assessment instruments, and using questions and assessment instruments for multiple criteria. This almost always meant sacrificing completeness, validity, clarity, or appropriateness. Sometimes it meant sacrificing many of these qualities.

Creating the questionnaires was done in conjunction with the first step described in the paragraph above. As the questionnaires took shape, it became clear that they were much too long and had to be condensed, as described above. The questionnaires were continually condensed and tested, and then questions and assessment instruments in the questionnaires modified as needed. In addition, methods of obtaining information in the questionnaires and formatting of the questionnaires was continually created or modified in conjunction with the modification of the questions and instruments. The finished therapist questionnaire is included as Appendix A. The finished client questionnaire is included as Appendix B.

Creating the databases was straightforward. They were created in the same program which was used to create the questionnaires, which was Visual FoxPro 7.0. There was one series of databases which held the answers to the questions on the questionnaires. This information included the order of any lists that were required to be ordered. There were also databases for therapists and clients that included combinations of answers used for matching criteria. For example, as will be described below, the Brief Symptom Inventory (BSI) (Derogatis, 2001) was used in the client questionnaire for several purposes. The BSI assesses clients on the dimension of Anxiety, among other things, which requires a mathematical manipulation of the sum of the scores on its Anxiety questions. When a client went to a new page in the questionnaire from the page with the BSI, the answers to the BSI questions were transferred directly to the appropriate database for holding questionnaire answers. In addition, when the client ended the questionnaire, the answers to the Anxiety questions were summed, the correct mathematical manipulation made to the sum, and the result transferred to the database for client criteria. This figure, a rating of Anxiety for the client, was then used in the matching formulas, as will be described below. In addition to these databases, there was also a database for each client for holding the results of how well they matched with each therapist in the list of therapists. Finally, there was a database holding information about participant

therapists, including their names, contact information, prices, etc., and a similar database for clients. After the study data had all been gathered, several more databases were created relevant to statistical analysis of this data. These are discussed in Chapter 5.

The matching formulas were developed to implement the matching criteria. After approximately five pilot testers took both the therapist and client questionnaires, there was enough data that matching formulas could be tried. As will be described in more detail below, several different methods were tried, until finally a logarithmic system was settled on.

The pilot testing occurred continuously throughout this process. The first phase of pilot testing was asking friends and acquaintances of the researcher to try answering questions and pieces of the questionnaires as they were developed. The second phase occurred after the questionnaires were completed. This consisted of therapists personally known by the researcher taking the therapist questionnaire, and friends, relatives and acquaintances of the researcher taking the client questionnaire. This not only illuminated any problems with the questionnaires, it also produced enough data to use to develop the matching formulas. The main problem discovered in this second phase of pilot testing was that people tended to answer away from the ends of questions. That is, if therapists were asked to rate the amount of structure sessions usually had, and given a choice of answers from 1 to 5, the answer never were 1 or 5, but always between 2 and 4. Therefore, to get a wider range of answers, in many places the possibility of choices was increased from 5 to 7.

In sections below, each of the criteria will be discussed in detail. The questions selected for the questionnaires will be discussed and described, and then the matching formulas will be discussed and described.

POINT VALUES FOR THE MATCHING CRITERIA

Client characteristic matching criteria were given points in multiples of 20. The maximum positive match on a criterion worth 20 points would be +20, and the maximum negative match would be -20. Factors is deciding how many points a criterion should have were:

1) How much research support there was for the criterion, including how many different researchers had suggested the criterion.

2) How specific the matching recommendations were; that is, how directly they could be related to matching clients to therapists.
3) How much support the criterion had in the psychotherapy research community; that is, was it mentioned in only one research report, or included in several books and research reviews.
4) How many matching recommendations were contained in the criterion.

Client preferences were given points in multiples of 50. Client preferences were divided between preferences for aspects of therapy, and preferences for aspects of therapists. Each of these was given equal weight. The final decisions for points for criteria are listed in Table 1 (see next page).

DEVELOPMENT OF THE MATCHING FORMULA SYSTEM

As can be seen from the point value allocations above, a perfect match between a client and therapist would produce a score of +1,200 points, and a perfect mis-match would produce a score of -1,200 points. After there were enough pilot testers in the databases, a simple linear matching system was tried. This entailed multiplying the appropriate client rating by the appropriate therapist rating, and then dividing by the correct divisor that would give +20 points to the perfect match. After doing this, in every case the point total for client characteristics was so low compared to the point total for client preferences as to make client characteristics irrelevant.

At first it seemed as if the problem was that clients and therapists were answering toward the middle of the relevant questions. For example, when asked how directive they were on a 1-5 scale, therapists always answered between 2 and 4. As described above, many of the scales were expanded to give 7 choices, leaving more room in the center. This helped a little, although the answers still tended to cluster around the middle. However, after this change, the totals for client characteristics were still extremely low compared to client preferences.

Table 1

Points Assigned to Matching Criteria

A) Matching Based on Client Characteristics x Characteristics of Therapy or Therapist

1) Referral based on diagnosis x treatment	40
2) Stage of change	60
3) Client resistance	60
4) Client coping styles	60
6) Client levels of distress and impairment	40
7) Problem complexity and social support	40
8) Findings from Project Match	40
9) Client tolerance for treatment complexity	20
10) Clients' perceptions of reality	20
11) Anaclitic versus introjective dimensions	40
12) Five Factor model of personality	80
13) Affiliation and control	40
14) Attachment style	40
15) Gunderson's personality dimensions	20

Total for Client Characteristics = 600 points

B) Matching by Client Preferences x Characteristics of Therapy or Therapist

1) Therapist Characteristics

a) Demographics (and 1 attitude)	100
age	
race	
class	
marital status	
parental status	
sex	
sexual orientation	
attitude toward sexual orientations	
b) Religion and spirituality	50
c) Values: Rokeach instrumental values	50
d) Empathy style	50
e) Epistemological style	50

(Sub-total for Preferences for Therapist = 300 points)

2) Therapy Characteristics

a) Length and depth	50
b) Medication attitudes	50
c) Subjects talked about	50
d) Ways to be helped	50
e) Causes of problems	50
f) Other therapy characteristics	50

(Sub-total for Preferences for Therapy = 300 points)

Total for Client Preferences = 600 points

The problem seemed to be that assigning a maximum score for maximum client rating multiplied by maximum therapist rating produced very low actual totals. For example, suppose a point rating is determined by multiplying a client 1-7 scale by a therapist 1-7 scale. As a specific example, suppose, as a great simplification, a matching recommendation is that the later a client's stage of change, the more therapist emphasis on action there should be, and vice versa. Suppose further that client stage of change and therapist emphasis on action are each measured with one answer on a 1-7 scale. The first step would be to convert these answers into plus and minus scales by subtracting 4 from each answer. Thus if a client answers 1 on their stage of change question, this becomes -3. The therapist and client ratings are then multiplied by each other. The highest rating would be a maximum client stage of change of +3 times a maximum therapist action emphasis of +3, for a total of +9. Another way to obtain the highest rating would be a minimum client stage of change of -3 times a minimum therapist action emphasis of -3, again for a total of +9. The lowest rating would be a minimum client stage of change of -3 times a maximum therapist action emphasis +3 (or vice versa) for a total of -9. Now suppose we have an actual client and therapist who each give very high answers of +2. As explained above, these would be the highest answers one would expect, since almost nobody ever answered at the extreme ends of the questions. Multiplying +2 time +2 gives a match rating of +4, which is only 44% of the maximum possible rating or +9. If this was the only question in a criterion for which +-20 points was allocated, this very high rating would be worth only 44% of the +20 points, or (rounding off) +9 points. Thus even when clients and therapists gave very high answers, and seemed to match extremely well on a question, their answers were not worth many points.

What was needed was a way to give proportionally more weight to lower points when client and therapist answers were multiplied. After several different methods were tried, a logarithmic system (base e) was finally chosen.

The final formula for use with client characteristics is as follows. (In the formulas below, asterisks (*) are used to denote multiplication, as is commonly done in computer programming. Log to base e is denoted by *ln*).

Assume Points N after calculation step have a maximum range of +-P. Then, to give a

rating of +-20:

If N >0, *rating = 10 * ln((N*6.39/P)+1)*

That is, first divide N by P, then multiply by 6.39. This will give a range of 0 to 6.39. Then add 1. This will give a range of 1 to 7.39. Ln of 1 is 0, ln of 7.39 is 2. This give a range of 0 to 2. Multiplying by 10 gives a range of 0 to 20.

If N <0, *rating = -10 * ln((-N*6.39/P)+1)*. Similarly to above, this gives a range of 0 to -20.

This system produces the following results. Suppose one has a +-10 scale, which was chosen so it could be directly related to percentages in an obvious way. That is, it is obvious that +1 on this scale represents 10% of the possible points in a positive direction, and 5 represents 50% of the possible points. Using just the positive part of this scale, the results of transforming all the numbers from 0 to 10 using the formula above are shown in Table 2 (see next page). (The same result will work for any scale, as long as the percentages are the same). As can be seen, this formula transforms numbers at the low end a fairly large amount, and has progressively less effect as the numbers get larger. For instance, the initial rating of 1 on the 0-10 scale, which is 10% of the possible total, is transformed into 5 on the 0-20 scale, which is 25% of the possible total. (For comparison, a strictly linear transformation would have transformed the value of 1 on the 0-10 scale to the value of 2 on the 0-20 scale, instead of the value of 5 which resulted from the logarithmic formula.) The value of 2 is transformed from being 20% of the possible total to being 40% of the possible total. At the high end, the value of 9 is transformed from 90% to 95%.

When this new formula was tried, it did result in much higher totals for client characteristics in comparison to client preferences. In addition, on each individual criterion within client characteristics, the match rating numbers were larger. The main justification for using this formula is that is seems to have worked to produce numbers for match ratings for client characteristics that were useable for matching.

Table 2
Results of Transforming Numbers Using Logarithmic Formula

Percent	N for P=10	N*6.39/P	+1	Take Ln	x10	Round	% of 20
0%	0	0	1	0	0	0	0%
10%	1	0.639	1.639	0.494	4.94	5	25%
20%	2	1.278	2.278	0.823	8.23	8	40%
30%	3	1.917	2.917	1.070	10.7	11	55%
40%	4	2.556	3.556	1.269	12.69	13	65%
50%	5	3.195	4.195	1.434	14.34	14	70%
60%	6	3.834	4.834	1.576	15.76	16	80%
70%	7	4.473	5.473	1.700	17.00	17	85%
80%	8	5.112	6.112	1.810	18.10	18	90%
90%	9	5.751	6.751	1.910	19.10	19	95%
100%	10	6.390	7.390	2.000	20.00	20	100%

CLIENT CRITERIA OBTAINED FROM TWO ASSESSMENT INSTRUMENTS

There were several pre-existing assessment instruments that were wholly or partially incorporated into the client questionnaire. All of these were self-assessment instruments, as these were obviously the only type that could be incorporated into a self-assessment client questionnaire. As describe briefly above, questions from these instruments were often mathematically combined and manipulated to produce client matching criteria values, which were then used for one or more client characteristic matching criteria. Two of these instruments will be described in this section.

Brief Symptom Inventory 18 (BSI 18)

Despite the fact that client diagnosis was an extremely small part of this matching program, it was still necessary for several matching criteria to have an assessment of client problems in the form of a diagnosis. There are many thoroughly tested and well accepted self-assessment instruments that are designed to measure client problems through self-assessment (Ogles, Lambert, & Masters, 1996; Strupp, Horowitz, & Lambert, 1997). Two self-assessment instruments that seem to be consistently highly recommended (Ogles, Lambert, & Masters, 1996) are the Symptom Checklist 90, and the Brief Symptom Inventory which is a shorter version derived from it. It was decided that neither of these instruments was short enough to include in the client questionnaire. Fortunately, there is an even shorter version by the same

author, the Brief Symptom Inventory 18 (BSI 18) (Derogatis, 2001), which has only 18 questions, and fit nicely on one page of the client questionnaire. The researcher purchased a package of 50 of these tests, which was more than enough for the few clients and pilot testers in the study. The questions from the BSI 18 were transferred to the computerized client questionnaire so clients' answers would be automatically entered into their databases, and all calculations relevant to matching could be done quickly.

The BSI 18 evaluates clients on the three symptom dimensions of Somatization, Depression, and Anxiety, and on a combination of all three of these, the Global Severity Index. The manual for the BSI 18 (Derogatis, 2001) instructs that scoring should be done on graph sheets enclosed with the tests, and gives detailed instructions as to how to transfer raw scores to these graphs, and how to interpret the results. The graphs of the BSI 18 show the equivalent community norm T scores for raw scores on the BSI dimensions. According to the manual (p. 23), they have developed a rule that any score of T=63 or higher is "a positive risk or a 'case'." Matching using this information required it to be translated in a different way. It was finally decided to translate all four scales to ranges of -5 to +5, where 0 would be the dividing line between *caseness* and *not caseness*. Therefore, the caseness level was set at T=63, and formulas developed for translating all values of T=63 or higher into the ranges of 1 to 5, and all lower values into the ranges 0 to -5. The exact method for making this translation, including the appropriate formulas, are shown in Appendix C. This resulted in four client matching characteristics being calculated by the computer program, and placed in the databases for client characteristics. These characteristics were the same as the dimensions of the BSI 18, and each had a range of -5 to +5, with any values over 0 being considered *caseness*. For example, if a recommendation is made for matching clients with high anxiety, high anxiety would be considered any rating over 0 on the client BSI Anxiety rating.

NEO Five-Factor Inventory

One matching criterion included several recommendations based on clients ratings on the Five Factor Model of Personality (Anderson, 1998; Wallach, 2000). Sanderson and Clarkin (1994) specifically recommend using the NEO Personality Inventory (NEO-PI) for psychotherapy treatment planning. However, the NEO-PI has 240 questions, which is

obviously too long to be included in the client questionnaire. Fortunately, there is a shorter version, the NEO Five-Factor Inventory (NEO-FFI) (Costa & McCrae, 1992), which has only 60 questions. Although this is still rather long for the client questionnaire, there was no way to make this assessment any shorter, and it was assumed the ratings could be used for multiple purposes. Therefore, a package of these instruments was purchased, and the entire 60 questions were transferred to the computer matching program.

The NEO-FFI evaluates clients on the five domains of Neuroticism, Extroversion, Openness, Agreeableness, and Conscientiousness. It is normally scored by adding up the separate scores for the five domains, each of which has its own 12 questions, and marking the total on a chart provided. There are separate charts for male and female. These charts have dividing lines based on T scores, which divide the results for each score into either Very Low, Low, Average, High, or Very High. For matching purposes, the first transformation was to merely translate these ranges into the numerical range of 1-5. That is, Very Low became 1, Low became 2, as so forth. However, for some matching criteria, a wider range was need. Therefore, the scores were also transformed into the range of -10 to +10. The methods and formulas for making both of these transformations are described in detail in Appendix D.

THERAPIST AND CLIENT ORDERING QUESTIONS

There were several parts of their questionnaires where clients and therapists were required to put items in order by dragging them with the mouse. These were always used to match clients' preferences to therapists' usual emphasis in therapy. However, the therapists' answers were also sometimes used for other matching purposes. To understand the matching systems and formulas described in the section below on matching by client characteristics, it is necessary to understand some of these ordering questions in detail

Methods of Helping Clients ("Help-Ways")

For this part of their questionnaires, therapists were instructed to put a list of 7 possible ways of helping clients into the order of their usual amount of emphasis, and then rate each on how often they used it. These ways of helping clients will be referred to as *help-ways*. Clients put the same list in order of preference, and then rated each help-way on how often they would like it used. For matching by preferences, clients were matched to therapists

on how much their orders and ratings coincided with each other.

The list of help-ways was in part an attempt to differentiate therapists according to their relative emphasis on cognitive, behavioral, psychodynamic, or humanistic therapy. For example, the help-way "Learn new ways to think about problems in order to have more control over them" was intended to represent cognitive therapy. In addition, the list of help ways was written so that therapists' ratings of help-ways might be useful for many matching criteria for matching by client characteristics.

Each help-way had two numerical ratings: the order of preference where the therapist put it, and the rating of how much the therapist used it. These will be referred to as the *order* rating, and the *how-often* rating. The order rating was a number from 1 to 7, depending on the order it was placed. This was then subtracted from 8, so that the final order rating was 7 for the highest rated help-way, and 1 for the lowest rated help-way. The how-often rating was from 1 to 5, with 1 = *Always*, and 5 = *Rarely*. This score was then subtracted from 6, so that higher numbers equaled more often use. These two scores were then added together. This gave a minimum of 2 (order = 1, how-often = 1) and a maximum of 12 (order = 7, how-often = 5).

Subjects Usually Talked About in Therapy ("Talk-Subjects")

Therapists were given the following instruction for this part of their questionnaire: "Below are 16 subjects that might be discussed during therapy. To the extent you direct or control what subjects are discussed by clients, place these subjects according to their degree of emphasis by moving 4 of them into each box on the right." The boxes were labeled *most emphasized*, *2nd most emphasized*, *2nd least emphasized*, and *least emphasized*. Four of these *talk-subjects* had to be placed in each box. When this page was finished, the computer program gave those talk-subjects in the *most emphasized* box a score of 4, those in the *2nd most emphasized* box a score of 3, those in the *2nd least emphasized* box a score of 2, and those in the *least emphasized* box a score of 1.

In their questionnaire, clients put the same list in order of preference. For matching by preferences, clients were matched to therapists on how much their orders coincided with each other.

CLIENT CHARACTERISTICS: MATCHING QUESTIONS AND FORMULAS

In the sections below, the questions and matching formulas used for each matching criterion for client characteristics will be discussed in detail. All questions that are not part of existing assessment instruments were created by the researcher specifically for the questionnaires. The assessment instruments are discussed as entities in themselves, without describing their component questions. All individual questions created for the questionnaires and all questions on assessment instruments are shown in the client questionnaire and therapist questionnaire which are included as Appendixes A and B.

In the discussions below, the ranges of answers for all individual questions are 1 to 7, unless stated otherwise. As can be seen from the questionnaires, there are no numbers on the questions themselves. The questions have one of two formats. One format has a rectangular box title on the top, a phrase on the left, and a phrase on the right, with arrows going in both directions (left and right) between the two phrases. There are seven circles next to the arrows, indicating seven possible choices. Questionnaire takers click a circle next to the arrows that indicate how close their choice is to the left or right phrase. The computer program then translates the choice into a number from 1 to 7, with 1 indicating the circle farthest to the left. The other question format has a box with a question on top, and 5 phrases inside, each phrase with a circle before it. Questionnaire takers click the circle next to the phrase they choose. The computer program then translates the choice into a number from 1 to 5, with 1 representing the first choice (the top choice or the choice farthest to the left).

In the discussion below, the questions are described as if they had ranges of answers from 1 to 7 or from 1 to 5. The questionnaire takers never see these numbers. They are the numbers into which the answers on the questionnaires have been translated, and they are the numbers used in the matching formulas. In all descriptions below, it should be assumed that the questions had ranges of 1 to 7, unless stated otherwise.

In doing calculations for questions, either the exact raw score for the question could be used, or the inverse had to be used. For example, if therapists were rated for amount of structure in sessions on a scale of 1 to 7, with 7 indicating the most structure, and a matching recommendation called for the more structure the better, the raw score could be used.

However, if instead the matching recommendation called for the less structure the better, then the inverse of the structure score would be obtained by subtracting the structure rating from 8, and then using this score for matching calculations. In the discussions below, these decisions on when the wording of the questions required inverses of scores to be used are not shown. These decisions are obvious from reading the questions. Showing these decisions and showing the inverse calculations would have made the discussions of matching more complicated and more difficult to follow, as it would have involved showing one extra calculation step.

Diagnosis x Treatment

Short Restatement of Matching Recommendations

For referral of clients with anxiety or sexual problems, therapists should be aware of the possible utility of cognitive and behavioral techniques, especially exposure methods, and have some method of implementing them, either by themselves or in collaboration with other therapists.

Client Assessment: Anxiety

The recommendations were actually for exposure treatments for clients with agoraphobia, phobias, or OCD. Time and space considerations, and the relative unimportance of this particular recommendation, meant that specific diagnoses of these client conditions could not be made. Therefore, the decision was made to approximate the existence of these conditions from the rating of Anxiety on the Brief Symptom Inventory 18. As can be seen on the BSI itself (see the first page of the Client Problem Questionnaire, Appendix B), 3 of the 6 anxiety questions specifically ask about fear, so this is not necessarily a bad approximation, at least as far as agoraphobia and phobias are concerned. The BSI Anxiety rating has a range of -5 to +5. The recommendation is only for clients with high anxiety. There were no recommendations for clients with low anxiety. Therefore, all values under 0 were set to 0. This produced a final score with a possible range of 0 to +5.

Client Assessment: Sexual Problems

The assessment of clients' sexual problems was made with a combination of two questions.

1) Is a sexual problem part of the reason you want to see a therapist? (*Yes, No*).

2) (Only appears if answer to question 1 is *Yes*). How important is this problem compared to the other reasons you want to see a therapist? (1 = *Very unimportant*, 2 = *Relatively unimportant*, 3 = *Somewhat Important*, 4 = *Very Important*, 5 = *Most Important*).

If clients answered that they did have sexual problems, their level of sexual problems was from 1 to 5, depending on their answer to Question 2. If they did not have a sexual problem, their problem level was set at 0.

Therapist Assessment: Exposure Treatments for Anxiety Problems

The assessment of therapists using exposure treatments for anxiety problems, or collaborating with other therapists who specialize in exposure treatments, was made with two questions, listed together under the heading "For your clients with anxiety disorders such as agoraphobia, phobias, or OCD."

1) With how many of these clients do you use systematic desensitization or exposure treatments? (Range = 1-5, 1 = *All clients*, 5 = *No clients*).

2) How often do you collaborate with other therapists who specialize in systematic desensitization or exposure treatments by referring your clients with these disorders to them? (Range = 1-5, 1 = *Usually*, 5 = *Never*).

Therapists had two questions, either of which could satisfy the recommendation of their having some way to implement exposure treatments. The answer to the question about using exposure treatment had a scale of 1,2,3,4,5. This was converted to the scale of -8,-4,0,+6,+8. The therapist question about collaboration was converted to the scale of -8,-4,0,+3,+4. The plus side on the collaboration scale is lower because collaboration was considered not as good a match as therapists actually being able to use exposure treatments themselves. Then the highest value from either scale was selected as the therapist's level of meeting this matching recommendation.

Therapist Assessment: Behavioral Treatments for Sexual Problems

The assessment of therapists using behavioral treatments for sexual problems, or collaborating with other therapists who specialize in behavioral treatments, was made with two questions, listed together under the heading "For your clients with sexual performance problems."

1) With how many of these clients do you use behavioral treatments? (Range = 1-5, 1 =

Usually, 5 = *Never*).

2) How often do you collaborate with other therapists who specialize in behavioral treatments by referring your clients with these disorders to them? (Range = 1-5, 1 = *Usually*, 5 = *Never*).

Therapists had two questions, either of which could satisfy the recommendation of their having some way to implement behavioral techniques. The answer to the question about using behavioral treatments had a scale of 1,2,3,4,5. This was converted to the scale of -8,-4,0,+6,+8. The therapist question about collaboration was converted to the scale of -8,-4,0,+3,+4. The plus side on the collaboration scale is lower because collaboration was considered not as good a match as therapists actually being able to use behavioral treatments themselves. Then the highest value from either scale was selected as the therapist's level of meeting this matching recommendation.

Matching Calculations: Point Allocation

The point allocation for this citerion was 40 points. There are two recommendations within this criterion. Each recommendation was allocated half of the points for the overall criterion, that is, 20 points for each.

Matching Calculations: Client Anxiety

The raw rating for matching was obtained by multiplying client anxiety by therapist level of using exposure treatments for anxiety problems. The maximum possible rating would be 5 (client) x 8 (therapist) = 40. The minimum possible rating would be 5 (client) x -8 (therapist) = -40. The raw rating was converted into the -20 to +20 range using the formulas below, with N representing the raw rating.

If N>=0, $Rating = 10 * \ln((N*6.39/P)+1)$ where P = 40
If N<0, $Rating = -10 * \ln((-N*6.39/P)+1)$

Matching Calculations: Client Sexual Problems

The raw rating for matching was obtained by multiplying the client sexual problem level by the therapist level of using behavioral treatments for sexual problems. The maximum possible raw rating would be 5 (client) x 8 (therapist) = 40. The minimum possible raw rating would be 5 (client) x -8 (therapist) = -40. The raw rating was converted into the -20 to +20 range using the formulas below, with N representing the raw rating.

If N>=0, $Rating = 10 * \ln((N*6.39/P)+1)$ where P = 40

If N<0, *Rating = -10 * ln((-N*6.39/P)+1)*

Stage of Change

Short Restatement of Matching Recommendations

The more action oriented the therapists, the more they should be matched with clients in later stages of change. The more therapists tend to use experiential or exploratory techniques, the more they should be matched with clients in earlier stages of change. The more the therapists concentrate on alleviating premature termination, the more they should be matched with clients in the precontemplation stage of change.

Client Assessments

According to Norcross and Beutler (1997), a client's stage of change can be determined by either an assessment instrument that directly measures this construct, or by a few direct questions to the client. The instrument they recommend is the Stages of Change Scale, which is a 32 item questionnaire (Brogan, Prochaska, & Prochaska, 1999). As an alternative, the direct questions they suggest are (p. 49) "Are you intending to change in the near future? Are you currently changing? Are you changed and working to prevent relapse?" It was decided that the suggested complete assessment instrument was too long to include in the client questionnaire. Therefore, the questions suggested by Brogan, Prochaska, & Prochaska were modified slightly, and included in the client questionnaire.

1) How aware are you of your serious problems? (Range = 1-5, the higher the number, the more aware the client is).
2) Do you think you need to change to solve your problems? (1 = *No*, 2 = *Yes*). (Questions 3 and 4 below only appear if answer to Question 2 is *Yes*).
3). Do you know what changes you need to make to solve your problem or problems? (Range = 0-5, 0 = this question didn't appear, 1 = *I have no idea what changes I need to make*, 5 = *I know exactly what changes I need to make*).
4) What is the status of your making changes to solve your problem or problems? (Range = 0-5, 0 = this question didn't appear, 1 = *I don't want to make any changes within the next 2 years*, 5 = *I have started making changes already*).

The first raw score was obtained by adding the answers to all these questions. The higher the score, the later the stage of change. The minimum score was 2 (1 on question 1, 1 on Question 2, and 0 on the other two questions, which didn't appear). The maximum score is

5 on Question 1, 2 on Question 2, 5 on Question 3, and 5 on question 4, for a total of 17. It was decided that anyone seeking psychotherapy would feel that they did need to change, and so would answer *Yes* on Question 2, making a practical minimum of 1 + 2 + 1 + 1, or a total of 5. Therefore, it was decided to set any totals under 5 at 5. (In reality, there were no totals under 5, either with pilot testers or participant clients). This created a practical range of scores of 5 to 17. The final level of client stage of change was obtained by subtracting 11 from this score. This created a range for client stage of change of -6 to +6.

Therapist Assessment: Action Orientation

Therapist action orientation, or amount of emphasis on action, was assessed through one question and two help-ways:

1) How much does your therapy focus on alleviation of symptoms, vs. on depth (underlying causes of problems)? (1 = *Almost exclusively on alleviation of symptoms*, 7 = *Almost exclusively on the underlying causes of problems*).
2) The help-way *develop new skills or learn new ways to behave in the outside world.*
3) The help-way *get immediate help to take specific actions as soon as possible to make symptoms better.*

The raw score total is 2*Question1 + Question2 + Question3. The score for Question 1 was doubled, as it is the most direct assessment of action orientation, and also had a range of half the other two questions. Questions 2 and 3 are ratings of help-ways. As explained above in the special section on help-ways, the raw scores for help-ways are the inverses of the totals for their order and their how-often ratings, with total ranges of 2 to 12. The minimum order rating for the two help-ways would be 1 and 2 (they couldn't both be 1). Therefore, adding the order score and the how-often rating, the minimum total score for the lowest and second lowest help-ways would be 2 and 3 respectively. The minimum raw score for action orientation would be 2 + 2 + 3 = 7. In like manner, the maximum score would be 14 + 12 + 11 = 37. This gives a raw score range of 7 to 37. To equalize scores around 0, 22 was then subtracted from this raw score, giving a final score range of -15 to +15.

Therapist Assessment: Experiential or Exploratory Techniques

Therapists' amount of emphasis on experiential or exploratory techniques was assessed with one question and three help-ways.

1) How much does your therapy focus on alleviation of symptoms, vs. on depth (underlying

causes of problems)? (The same as Question 1 in the section above on action orientation).
2) The help-way *gain insight into, or understanding of, the causes of problems*.
3) The help-way *an opportunity for deep experiencing and increased awareness of feelings and sensations*.
4) The help-way *an opportunity to examine clients' lives in a growth producing climate*.

The raw score total is was calculated with the formula 2*Question1 + Question2 + Question3 + Question4. Question 1 was doubled for the same reason as in the section above on action emphasis. The system of determining minimum and maximum raw scores with more than one help-way was discussed in the section above on therapist assessment for action orientation. For the assessment of experiential or exploratory techniques, the minimum possible raw score would be 2 + 2 + 3 + 4 = 11. The maximum possible raw score would be 14 + 12 + 11 + 10 = 47. Thus there is a raw score range of 11 to 47. To equalize around 0, 29 was then subtracted from this raw score, giving a final score range of -18 to +18.

Therapist Assessment: Alleviating Premature Termination

It seems fairly obvious that clients in very early stages of change would be likely to quit therapy early, and thus need their therapists to concentrate on their not leaving early. However, this doesn't mean that therapists have different amounts of normal emphasis in this area. There is no therapy quality that is directly related to emphasizing that clients should stay in therapy. The closest approximation that could be made for this relatively short questionnaire was to assume that there was some correlation between this quality and therapists emphasis on giving support and hope to clients. The idea behind this assumption was that clients in early stages of change with more support and more emphasis on hope would be more likely to overcome their inclination to quit therapy prematurely. One talk-subject and one help-way were used for this assessment:

1) The talk-subject *providing direct reassurance and/or support to clients*.
2) The help-way *[clients] develop more hope that they can solve their problems.*

The raw total was calculated with the formula 3*Question1 + Question2. As explained above in the section on *subjects usually talked about in therapy*, talk-subjects have a score range of 1 to 4. Since help-ways have a range of 2 to 12, Question 1 was multiplied by 3 to make it more equivalent to Question 2. The minimum possible raw score would be 3x1 + 2 = 3 + 2 = 5. The maximum raw score would be 3x4 + 12 = 12 + 12 = 24. Thus there is a raw

score range of 5 to 24. To equalize around zero, 14.5 was then subtracted from this raw score, giving a final score range of -9.5 to +9.5.

Matching Calculations: Point Allocation

The point allocation for this matching criterion was 60 points. There are three recommendations within this criterion. Therefore, each of the three recommendations was allocated 20 points (1/3 of the total).

Matching Calculations: Emphasis on Action

The raw rating for matching was obtained by multiplying the client stage of change by the therapist level of emphasis on action. The minimum possible raw rating would be 6 (client) x -15 (therapist) = -90. This same minimum would be obtained by -6 (client) x 15 (therapist). The maximum possible raw rating would be 6 (client) x 15 (therapist) = 90. This same maximum would be obtained by -6 (client) x -15 (therapist). The raw rating was converted into the -20 to +20 range using the formulas below, with N representing the raw rating.

If N>=0, $Rating = 10 * \ln((N*6.39/P)+1)$ where P = 90
If N<0, $Rating = -10 * \ln((-N*6.39/P)+1)$

Matching Calculations: Emphasis on Experiential or Exploratory Techniques

The raw match rating was obtained by multiplying the client stage of change by the therapist level of emphasis on experiential or exploratory techniques. This product was then multiplied by -1, since the recommendation was for these techniques for earlier stages of change. The maximum possible raw rating would be 6 (client) x -18 (therapist) x -1 = 108. This same maximum would be obtained by -6 (client) x 18 (therapist) x -1. The minimum possible raw rating would be 6 (client) x 18 (therapist) x -1 = -108. This same minimum would be obtained by -6 (client) x -18 (therapist) x -1. The raw rating was converted into the -20 to +20 range using the formulas below, with N representing the raw rating.

If N>=0, $Rating = 10 * \ln((N*6.39/P)+1)$ where P = 108

If N<0, $Rating = -10 * \ln((-N*6.39/P)+1)$

Matching Calculations: Emphasis on Alleviating Premature Termination

The raw match score was obtained by multiplying the client stage of change by the

therapist level of emphasis on alleviating premature termination. This product was then multiplied by -1, since this recommendation is for earlier stages of change. The minimum possible raw rating would be 6 (client) x +9.5 (therapist) x -1 (or -6 client x -9.5 therapist x -1) = -57. The maximum possible raw rating would be 6 (client) x -9.5 (therapist) x -1 (or -6 client x +9.5 therapist x -1) = 57. The raw rating was converted into the -20 to +20 range using the formulas below, with N representing the raw rating.

If N>=0, $Rating = 10 * ln((N*6.39/P)+1)$ where P = 57
If N<0, $Rating = -10 * ln((-N*6.39/P)+1)$

Prescriptive Psychotherapy

As discussed in Chapter 2, Larry Beutler and his associates have developed a system of adapting psychotherapy to patient characteristics (Beutler, Arizmendi, Crago, Shanfield, & Hagaman, 1983; Beutler, Rocco, Moleiro, & Talebi, 2001). The latest name for their system is *Prescriptive Psychotherapy* (Beutler & Harwood, 2000). The recommendations within this system have been adapted to this matching system by changing them to recommendations for usual emphasis by therapists. The main client characteristics on which Prescriptive Psychotherapy is based are:

* Resistance
* Coping Style
* Level of Distress and Impairment
* Problem Complexity and Social Support

Each of these client characteristics is discussed in detail in a separate section below.

Resistance (Prescriptive Psychotherapy)

Short Restatement of Matching Recommendations

Therapy directiveness should be inversely related to client resistance. The more resistant the client, the less therapist control, structure and directiveness there should be. Paradoxical interventions are recommended for clients with high resistance.

Client Assessments

For assessing client resistance, Beutler and Harwood (2000, p. 43) recommended

several instruments, the shortest of which is the Therapeutic Reactance Scale (TRS) (Dowd, Milne, & Wise, 1991). This is a 28 question instrument developed to measure client reactance. Since there wasn't room in the client questionnaire for all 28 questions, it was decided to reduce the scale to 10 questions. Using factor analysis, Dowd et al. have separated the TRS into the two factors of *behavioral reactance* and *verbal reactance*. It was decided to select the five questions that had the highest factor loadings on each of these scales. This was done mainly by selecting all the questions that had a factor loading of 0.5 or higher on any factor. It turns out that there are exactly 5 questions that had factor loadings of 0.50 or higher on the behavioral reactance factor, and 4 questions on the verbal reactance factor. Therefore, one extra question was selected for the verbal reactance factor by choosing the next highest factor loading, which was 0.48. This produced the 10 questions on Page 8 of the Client Personality Questionnaire, under the heading *Some Final Personality Questions* (see Appendix B).

Each of these 10 questions had five choices, from *strongly disagree* to *strongly agree*. These choices were assigned values of 1 to 5. To create a value for client resistance, the values from all ten questions were totaled, although some values had to first be reversed because the questions were written in the negative. This produced a sum with a minimum of 10 (10 questions, each with an answer of *1*) and a maximum of 50 (10 questions, each with an answer of *5*).

All matching recommendations are for clients with high resistance. The middle level of answers, halfway between *strongly disagree* and *strongly agree*, is *neutral*, which has the value of 3. Therefore, a client with all answers of *neutral* would have a total score of 30 (10 questions, each with an answer of 3). High resistance was therefore considered to be any score over 30. To make a useable range for matching calculations, 30 was subtracted from the total score, and all resulting values less than 0 set to 0. This produced a range of 0 to 20, with any score over 0 representing positive resistance.

Therapist Assessment: Control, Structure, and Directiveness

Therapist control, structure, and directiveness was assessed with nine questions: 1) How much direction or control do you usually exert over what your clients discuss during

therapy? (1 = *No direction or control; subjects of discussion are completely up to the client*, 7 = *Complete direction and control; I direct as much as possible what is discussed*).
2) How directive are you with clients during therapy? (1 = *Not directive at all: I never give clients explicit directions*, 7 = *Extremely directive: clients are expected to follow my directions and guidance*).
3) To what degree is your usual method of therapy structured? (1 = *My therapy is usually almost completely unstructured*, 7 = *My therapy is usually very highly structured*).
4) To what extent is your therapy under your control, vs. collaborative with your clients? (1 = *I consider myself an expert therapist, whose job is to guide and instruct my non-expert clients*, 7 = *I consider my clients equally as expert as myself, and I am as collaborative with them as possible*).
5) In general, how confrontational is your therapy? (1 = *My therapy is almost always completely non-confrontational*, 7 = *My therapy tends to be very direct and confrontational*).
6) To how many of your clients do you assign homework? (1 = *I assign homework to almost none of my clients*, 7 = *I assign homework to almost every client*).
7) When you assign homework to a client, how often do you do this? (1 = *I almost never assign homework to clients*, 7 = *I assign homework for clients after every session*).
8) When you assign homework, to what degree is this homework self-directed by your clients? (1 = *Homework is completely self-directed by clients*, 7 = *Homework has explicit instructions which should be followed*).
9) How often do you give specific advice to clients? (1 = *I almost never give specific advice to clients*, 7 = *I very often give specific advice to clients*).

The raw score for this therapist assessment was 2*Question1 + 3*Question2 + 2*Question3 + 2*Question4 (reversed) + 2*Question5 + Question6 + Question7 + Question8 + 2*Question9. The amount of emphasis given to these questions through the multiplication by 2 or 3 was based on their relevance to control, structure, or directiveness. The minimum possible raw score would be 2 + 3 + 2 + 2 + 2 + 1 + 1 + 1 + 2 = 16. The maximum possible raw score would be 14 + 21 + 14 + 14 + 14 + 7 + 7 + 7 + 14 = 112. The amount of 64 was then subtracted from this raw score, giving a final score range of -48 to +48.

Therapist Assessments: Use of Paradoxical Interventions

There was only one question for this assessment:

1) How comfortable are you using the technique of Paradoxical Interventions? (1= *I never use this technique*, 7 = *Very comfortable; I use this technique whenever I feel it might be effective*).

This assessment from this one question had a minimum raw score of 1 and a maximum raw score of 7. Since the recommendation involved comfort with this technique, not discomfort, 4 was subtracted from the raw score, and all resulting scores less than zero

were set to zero. This produced a final score range of 0 to +3.

Matching Calculations: Point Allocation

The point allocation for the matching criterion of client resistance was 60 points. It was decided to allocate only 10 points to the suggestion for paradoxical interventions, and 50 points to the suggestion for therapist control, structure, and directiveness.

Matching Calculations: Therapist Control, Structure, and Directiveness

The raw match rating was obtained by multiplying client resistance by the therapist level of control, structure, and directiveness, and then multiplying by -1, since the recommendation was for less of these therapy characteristics for more resistance. The minimum possible raw rating would be 20 (client) x +48 (therapist) x -1 = -960. The maximum possible raw rating would be 20 (client) x -48 (therapist) x -1 = +960. The raw rating was converted into the -50 to +50 range using the formulas below, with N representing the raw rating.

If N >0, $Rating = 25 * ln((N*6.39/P)+1)$ where P = 960
If N<0, $Rating = -25 * ln((-N*6.39/P)+1)$

Matching Calculations: Therapist Use of Paradoxical Interventions

The raw match rating was obtained by multiplying client resistance by the therapist level of use of paradoxical interventions. The minimum possible raw rating would be 0, obtained if either client resistance was zero or therapist level of use of paradoxical interventions was zero. There is no possibility of a negative raw rating, since there is no recommendation for clients with low resistance, and no recommendation for not using paradoxical interventions connected with client resistance. The maximum possible raw rating would be 20 (client) x 3 (therapist) = 60.

The decision was to allow 10 points for this recommendation. However, an allocation of 10 points usually means a total allocation of 20 points, since points can be negative and positive. Since the scores in this recommendation can only be positive, it was decided to allow 20 positive points to make total allowed points equivalent throughout all recommendations. Therefore, the formula below was used to convert the raw rating range of 0 to 60 points into the rating points range of 0 to 20 points. In the formula, N represents the raw score.

Rating = 10 ln((N*6.39/P)+1)* where P = 60

Coping Style (Prescriptive Psychotherapy)

Short Restatement of Matching Recommendations

According to Prescriptive Psychotherapy, clients' coping styes are either *externalizing* or *internalizing*. Externalizing people blame other people or external objects for their behavior or problems, while internalizing people blame themselves. For externalizing patients, treatments are recommended that focus on external behavior or on changing symptoms, independently from any introspection by the patients. For internalizing patients, treatments are recommended that emphasize insight, self-knowledge, self-understanding, awareness, and emotional arousal.

Client Assessments

For measuring coping style, Beutler and Harwood (2000) recommend using the Systematic Treatment Selection computer software, which was developed by Beutler and his associates. Coping style is one of the areas directly measured by this assessment instrument. Beutler and Harwood also suggest that coping style can be measured by combining various scales of the Minnesota Mutiphasic Personality Inventory (MMPI). Both of these methods would have been too complex and too lengthy for this one matching criterion. Therefore, it was decided to attempt to assess coping style using three direct questions, and a measurement based on the results of the clients' NEO Five-Factor Inventory assessment.

Three Direct Questions

The three direct questions were:

1) To what extent are your problems caused by your own actions, thoughts, and feelings? 2) To what extent are your problems caused by the actions of other people?
3) To what extent are your problems caused by external situations not under your control?

Assessment From NEO-FFI

A correspondence between coping style and the five domains of the NEO-FFI was suggested by Sanderson and Clarkin (1994). They believe that internalizing clients would be high on Openness (O), low on Extraversion (E), and perhaps high on Neuroticism (N). Externalizing clients would be high on E, lower on O, and perhaps low on N. As was

discussed above, the basic ratings on these three factors were from 1 to 5, with higher numbers representing higher ratings on each. Since the suggestions for N seemed to have less sureness, the following formula was created: *internalization = O x2 + (6-E) x2 + N*. Since the matching formulas below will be based on externalization, this was reversed to create the formula *externalization = (6-O) x2 + E x2 + (6-N)*. The minimum for externalization would be (6-5)x2 + 1x2 + (6-5) = 2 + 2 + 1 = 5. The maximum would be (6-1)x2 + 5x2 + (6-1)x2 = 10 + 10 + 5 = 25.

Totals for Coping Style

The coping stye being scored is externalization. Therefore, Question1 has to be reversed by subtracting from 6. The raw score for externalization was 2*(6-Question1) + 2*Question2 + 2*Question3 + externalization score from formula for NEO-FFI. The minimum raw score would be 2 + 2 + 2 + 5 = 11. The maximum raw score would be 14 + 14 + 14 + 25 = 67. The amount of 39 was subtracted from the raw score, giving a final score range for coping style of -28 to +28, where plus scores indicate externalization, and minus scores indicate internalization.

Therapist Assessments (Symptoms vs. Insight)

Combining the two recommendations, the therapist assessments was for emphasis on treatments that focus on external behavior or changing symptoms versus emphasis on treatments that focus on insight, self-knowledge, self-understanding, awareness, and emotional arousal. This assessment is given the name *symptoms vs. insight* for the purposes of this discussion. The higher client externalization, the higher therapists should be on *symptoms vs. insight*. This assessment was made from the ratings of six of the help-ways, and from two additional questions.

Assessment from Help-Ways

The six help-ways that were used for this assessment were:

Help-way1) Gain insight into, or understanding of, the causes of problems.
Help-way2) Develop new skills or learn new ways to behave in the outside world.
Help-way3) An opportunity for deep experiencing and increased awareness of feelings and sensations.
Help-way4) Get immediate help to take specific actions as soon as possible to make symptoms better.

Help-way5) An opportunity to examine clients' lives in a growth producing climate.
Help-way6) Learn new ways to think about problems in order to have more control over them.

As previously described, each of these help-ways has two scores: the order score and the *how-often* score. As also previously described, the total score for any one help-way is a minimum of 2 to a maximum of 12. However, the maximum and minimum for more than two help-ways used together can't simply be calculated by multiplying these figures by 2, since two help ways can't both have the lowest or highest order. For example, for just two help ways, the minimum order scores would be 1 + 2 = 3. For the 6 help-ways used, the calculations for maximum and minimum for order became more complex. It was necessary to create a table, Table 3, for this calculation.

Table 3
Maximum and Minimum Orders for 6 Help-ways on *Symptoms vs. Insight*
(Help-ways 2&4 = *Symptoms*, Help-ways 1, 3, 5, & 6 = *Insight*)

Order	Maximum *Symptoms*	Maximum Order Score	Minimum *Symptoms*	Minimum Order Score
1	Help-way4	8-1 = 7	Help-way1	1
2	Help-way2	8-2 = 6	Help-way3	2
3			Help-way5	3
4	Help-way1	4	Help-way6	4
5	Help-way3	5		
6	Help-way5	6	Help-way4	8-6 = 2
7	Help-way6	7	Help-way2	8-7 = 1
	Total Maximum = 35		Total Minimum = 13	

As can be seen from Table 3, if these six help-ways were ordered in the maximum possible order toward *symptoms* (and thus in the minimum order for *insight*), the total order score would be 35. If these six help-ways were ordered in the minimum possible order toward *symptoms* (and thus the maximum toward *insight*), the order score would be 13. The maximum *how-often* scores for help-ways 4 and 2 toward *symptoms* would be 5 for each. The maximum *how-often* scores for help-ways 1, 3, 5, and 6 toward *symptoms* would be 6-1 = 5 for each. Therefore, the total maximum possible score toward *symptoms* for *how-often* for these six help-ways would be 6 x 5 = 30. In like manner, the minimum possible score would

be 6 x 1 = 6. Therefore, the total maximum possible score toward symptoms, including both order and *how-often*, would be 35 + 30 = 65. The minimum possible score would be 13 + 6 = 19.

Therapist Assessment from Two Additional Questions

The two additional questions that make up the therapist assessment are:

1) How much does your therapy focus on alleviation of symptoms, vs. on depth (underlying causes of problems)? (1 = *Almost exclusively on alleviation of symptoms*, 7 = *Almost exclusively on the underlying causes of problems*).
2) To what degree do either of these descriptions describe your therapy? (1 = *Straightforward, practical, symptom-focused, educational, and supportive*, 7 = *Provocative, imaginative, involves novel thinking and experiences, focuses on self-exploration and discovery, and/or involves paradigm shifts*).

Because these two questions were so directly applicable to the assessments for this criterion, especially the first question, they were weighted by multiplying the score for the first question by 8, and multiplying the score for the second question by 4. In addition, since lower numbers on these questions represented *symptoms*, the scores were first subtracted from 8 to reverse them. Therefore, the minimum score for these two questions would be 1x8 + 1x4 = 8 + 4 = 12. The maximum score would be 7x8 + 7x4 = 56 + 28 = 84.

Totals for Therapist Assessments

The totals were the sum of the scores for the six help-ways, plus the score for the two additional questions. The minimum possible raw score would be 19 (help-ways) + 12 (2 additional questions) = 31. The maximum possible raw score would be 65 (help-ways) + 84 (2 additional questions) = 149. To create a balanced range, 90 was subtracted from this raw score, to make a final score with a range of -59 to +59. On this scale, minus numbers represent concentration on insight, and positive numbers represent concentration on symptom relief.

Matching Calculations

The raw match rating was obtained by multiplying client coping style by the therapist level of *symptoms vs. insight*. Coping style had a possible range of -28 (internalization) to +28 (externalization). Therapist *symptoms vs. insight* had a possible range of -59 (insight) to +59 (symptoms). The minimum raw rating would thus be +28 (client) x -59 therapist = -1652.

(The same minimum would result from -28 client x 58 therapist). The maximum possible raw rating would be -28 (client) x -59 (therapist) = 1652. (The same maximum would result from +28 client x +59 therapist).

The point allocation for this criterion was 60 points. These raw ratings were then converted into the -60 to +60 range using the formulas below, with N representing the raw score.

If N >0, $Rating = 30 * ln((N*6.39/P)+1)$ where P = 1652
If N<0, $Rating = -30 * ln((-N*6.39/P)+1)$

Level of Distress and Impairment (Prescriptive Psychotherapy)

Short Restatement of Matching Recommendations

There were three matching recommendations for this criterion. First, clients with low levels of distress and impairment should be matched to therapists whose treatments involve high levels of emotional intensity, and vice versa. Second, clients with extremely high levels of distress and impairment should be matched to therapists whose therapy at first emphasizes support and anxiety reduction. Finally, clients with more severe problems should be matched to more structured therapy.

Client Assessment

Clients were assessed for distress and impairment by combining their scores on the Global Severity Index (GSI) of the Brief Symptom Inventory 18 (BSI 18) with their answers to two additional questions. The BSI 18 that was incorporated into the client questionnaire was described in detail above. Two additional questions were added to the questionnaire specifically for assessment of distress and impairment. They were:

1) What is your current level of emotional distress during the past 7 days including today? (1 = *Almost no distress*, 7 = *Almost unbearable distress*).
2) What effect are your problems and emotional state having on your functioning? (1 = Almost no effect; I am functioning very well, 7 = Terrible effect; I am functioning extremely poorly).

As described above, the client scores on the GSI had a range of -5 to +5. Therefore, the minimum raw score for the two questions above plus the GSI would be -5 + 1 + 1 = -3. The

maximum raw score would be +5 + 7 + 7 = +19. To equalize scores in positive and negative directions, 8 was subtracted from the raw score, to produce a final score range for distress plus impairment of -11 to +11. In this score, anything over 0 would mean there was some degree of distress and impairment.

Therapist Assessment: Emotional Intensity

Therapists were assessed for the usual amount of emotional intensity in therapy with three questions:

1) What is the general level of emotional intensity during your therapy sessions? (1 = *My therapy sessions generally have extremely low emotional intensity*, 7 = *My therapy sessions generally have extremely high emotional intensity*).
2) To what degree do either of these descriptions describe your therapy? (1 = *Straightforward, practical, symptom-focused, educational, and supportive*, 7 = *Provocative, imaginative, involves novel thinking and experiences, focuses on self-exploration and discovery, and/or involves paradigm shifts*).
3) The help-way *an opportunity for deep experiencing and increased awareness of feelings and sensations*.

The raw score was 2*Question1 + Question2 + Question3. Question1 was multiplied by 2 since it was intended to directly assess the quality being determined. Since the range for help-ways is 2 to 12, the minimum possible raw score would be 2 + 1 + 2 = 5. The maximum possible raw score would be 14 + 7 + 12 = 33. To equalize scores, 19 was subtracted from the raw score, producing a final score range of -14 to +14.

Therapist Assessment: Emphasis on Support and Anxiety Reduction

This recommendation is probably not ideally suited for matching to therapists, since this requires differentiating therapists according to how much they emphasize support and anxiety reduction at the beginning of therapy, and therapists probably are not very different in this area. It is probable that almost all therapists would try at the beginning of therapy to be supportive for clients with high levels of distress, and try to reduce their anxiety.

There were no questions that directly related to emphasis on anxiety reduction. The questions closest to the recommendation asked about support and reassurance, and hope. In addition, one question was added because is had the word *supportive* as part of its wording.

1) The talk-subject *providing direct reassurance and/or support to clients*.
2) The help-way *[clients] develop more hope that they can solve their problems.*

3) To what degree do either of these descriptions describe your therapy? (1 = *Straightforward, practical, symptom-focused, educational, and supportive*, 7 = *Provocative, imaginative, involves novel thinking and experiences, focuses on self-exploration and discovery, and/or involves paradigm shifts*).

The raw score was 2*Question1 + Question2 + Question3. The range of Question1 consisted of its possible order rating of 1 to 4, with 4 being the highest rating. The range of Question2, which is a help-way, is as usual 2 to 12. The minimum possible raw score would be 2*1 + 2 + 1 = 5. The maximum possible raw score would be 2*4 + 12 + 7 = 27. To equalize scores, 16 was subtracted from the raw score, producing a final score range of -11 to +11.

Therapist Assessment: Amount of Structure in Therapy

The usual amount of structure in therapy was assessed with two questions:

1) To what degree is your usual method of therapy structured? (1 = *My therapy is usually almost completely unstructured*, 7 = *My therapy is usually very highly structured*).
2) To what degree is what happens during your therapy planned? (1 = *I am extremely flexible, and don't plan where my therapy is going ahead of time*, 7 = *I use a specific treatment plan for each client, which I follow very closely*).

Question 2 was added because it seemed probable that therapy that was planned would have a lot of structure. The raw score was 2*Question1 + Question2. The minimum possible raw score would be 2*1 + 1 = 3. The maximum possible raw score would be 2*7 + 7 = 21. To equalize scores, 12 was subtracted from the raw score, producing a final score range of -9 to +9.

Matching Calculations: Point Allocation

There were three separate matching recommendations withing this criterion. The point allocation for this criterion was 40 points. The third recommendation was based on one paper only, so it was given slightly less weight. The allocation was therefore 15 points for the first and second recommendation, and 10 points for the third recommendation, for a total of the 40 points allocated.

Matching Calculations: Emotional Intensity

The raw match rating was obtained by multiplying client level of distress and impairment by therapist level of emotional intensity. The result was then multiplied by -1,

since the recommendation was for less emotional intensity for more distress, and vice versa. Distress and impairment had a possible range of -11 to +11. Therapist emotional intensity had a possible range of -14 to +14. The minimum raw rating would thus be +11 (client) x +14 therapist x-1 = -154. (The same minimum would result from -11 client x -14 therapist x-1). The maximum possible raw rating would be -11 (client) x +14 (therapist) x-1 = +154. (The same maximum would result from +11 client x -14 therapist x-1).

These raw ratings were then converted into the -15 to +15 range using the formulas below, with N representing the raw rating.

If N >0, $Rating = 7.5 * ln((N*6.39/P)+1)$ where P = 154
If N<0, $Rating = -7.5 * ln((-N*6.39/P)+1)$

Matching Calculations: Emphasis on Support and Anxiety Reduction

This recommendation was for high levels of client distress and impairment only. It did not apply to clients with low levels. Therefore, all client distress levels below zero were set at zero, creating a range of 0 to +11. The raw match rating was obtained by multiplying this client level by the therapist level of emphasis on support and anxiety reduction, which had a range of -11 to +11. The minimum possible raw rating would be +11(client) x -11(therapist) = -121. The maximum possible raw rating would be +11 (client) x +11 (therapist) = +121.

These raw ratings were then converted into the -15 to +15 range using the formulas below, with N representing the raw rating, and P representing the maximum possible raw rating, which is 121. (7.5 is used as a multiplier instead of 10, because the point allocation is +-15 instead of +-20).

If N >0, $Rating = 7.5 * ln((N*6.39/P)+1)$
If N<0, $Rating = -7.5 * ln((-N*6.39/P)+1)$

Matching Calculations: Amount of Structure in Therapy

This recommendation was for high levels of client distress and impairment only. It did not apply to clients with low levels. Therefore, all client distress levels below zero were set at zero, creating a range of 0 to +11. The raw match rating was obtained by multiplying this client level by the therapist level of amount of structure in therapy, which had a range of -9 to +9. The minimum possible raw rating would be +11 (client) x -9 (therapist) = -99. The maximum possible raw rating would be +11 (client) x +9 (therapist) = +99.

These raw ratings were then converted into the -10 to +10 range using the formulas below, with N representing the raw rating.

If N >0, *Rating = 5 * ln((N*6.39/P)+1)* where P = 99
If N<0, *Rating = -5 * ln((-N*6.39/P)+1)*

Problem Complexity and Social Support (Prescriptive Psychotherapy)

Short Restatement of Matching Recommendations

There were two matching recommendations for this criterion. The first was that clients with simple problems should be matched to therapy that focuses on symptom relief, and clients with complex problems should be matched to therapy that is broader and focuses more on depth. The second recommendation was that the more complex clients' problems, the less social support they have, and the worse their early relationships were, the more they should be referred toward therapy that is less action oriented, is less time-based on a small fixed number of sessions, and has the possibility of increased depth over time.

Client Assessment: Problem Complexity

There was no elegant way to determine problem complexity in the matching program. Because this was only one of many matching criterion, and because questions had to be used for more than one criterion, problem complexity was determined by adding up the number of problems from various other questions. Unfortunately, this is extremely indirect and inexact, but it was the best that could be done with the time and space constraints of the client questionnaire.

1) If the BSI Anxiety score was greater than 0, Anxiety was counted as a problem.
2) If the BSI Depressions score was greater than 0, Depression was counted as a problem.
3) If the BSI Somatization score was greater than 0, Somatization was counted a problem.
4) If the client had a score of 6 or more for alcohol use being a problem as determined from the calculations in the Project Match section (see description below in Project Match section), then alcohol was counted as a problem.
5) If the client had a score of 6 or more for drug use being a problem as determined from the calculations in the Project Match section (see description below in Project Match section), then drug use was counted as a problem.
6) If the clients score on the Neuroticism domain of the NEO Five Factor Inventory of greater than 3 (i.e., 4 or 5), the this was considered as one problem.
7) If the client answered *yes* to the question *is a sexual problem part of the reason you want to*

see a therapist?, and then rated the importance of this problem at 3 or above on the question *how important is this problem compared to the other reasons you want to see a therapist?*, then this was counted as one problem.

There was therefore a possible total range of number of problems of from 0 to 7. To equalize this number as much as possible in positive and negative directions, 3 was subtracted, and then the result multiplied by 4. The gave a minimum score of -12, and a maximum score of +16. (The multiplication by 4 was to make this score equivalent to other scores used in the client assessment for the second matching recommendation in this criterion).

Client Assessment: Amount of Social Support

Clients' amount of social support was assessed with four questions specifically created for this assessment. All of these questions had answer ranges of 1 to 5.

1) How much does your family care about you? (Higher numbers = more family members who care more).
2) How much would your family do to help you? (1 = almost anything, 5 = almost nothing).
3) How much do your friends care about you? (Higher numbers = more friends who care more).
4) How much would your friends do to help you? (1 = almost anything, 5 = almost nothing).

The scores of all these questions were reversed, so higher numbers represented more social support. The scores were then added together. Since there are four questions, the minimum possible score would be 4 x 1 = 4, and the maximum would be 4 x 5 = 20. To equalize this score, 12 was subtracted, producing a final range of minimum possible score = -8, and maximum possible score = +8.

Client Assessment: Quality of Early Relationships

One question was created specifically to assess this quality.

1) How good were your early (childhood) relationships with your family? (Scale = 1-7, 1 = excellent, 7 = terrible).

The minimum score for this question is 1, and the maximum is 7. This score was equalized by subtracting 4, producing a range of -3 to +3.

Client Problem Complexity + Social Support + Early Relationships

The second recommendation for in this criterion was based on client problem complexity, lack of social support, and poor early relationships, all combined. Therefore, a

score was needed for this combined description, which was given the name *CSR* (for "complexity," "social," and "relationships"). The score was produced with the formula *CSR = problem complexity - 2*social-support - 2*quality-of-early-relationships*. Problem complexity had a range of -12 to +16. Social support had a range of -8 to +8. Quality of early relationships had a range of -3 to +3. Therefore, the minimum possible raw score for CSR would be -12 -2*8 -2*3 = -12 -16 -6 = -34. the maximum possible raw score for CSR would be +16 - 2*(-8) - 2*(-3) = 16 + 16 + 6 = +38. Because this recommendation was for clients with high problem complexity, weak social support, and poor early relationships, with no corresponding recommendations for clients with simple problems, good social support, and good early relationships, all negative numbers were set to 0, leaving a final range for CSR of 0 to +38.

Therapist Assessment: Symptom Relief Versus Depth

The first matching recommendation for this criterion was that clients with simple problems should be matched to therapy that focuses on symptom relief, and clients with complex problems should be matched to therapy that is broader and focuses more on depth. This therapist assessment was made by using the therapist assessment from the Client Coping Style section, which was named *symptoms vs. insight*. As described in that section, symptoms vs. insight has a range of -59 to +59, with minus numbers representing concentration on insight, and positive numbers representing concentration on symptom relief.

Therapist Assessment: Action Orientation

The first part of therapist assessment for the second matching recommendation required assessing therapists for orientation toward action. Although this is similar to the first recommendation assessment, the exact same assessment of *action orientation* had already been done for the Stage of Change assessments, so it was easy to use it again for this matching recommendation. As described in that section, *action orientation* has a final score range of -15 to +15.

Therapist Assessment: Long-Term Emphasis of Therapy

The assessment needed for this part of the second matching recommendation was for therapy that was less time based on a small fixed number of sessions, and that had the

possibility of increased depth over time. It was assumed that this was essentially the same as assessing for therapists emphasis on longer term therapy, since therapy that lasted longer would automatically have the possibility of increased depth over time.

The assessment for long-term emphasis of therapy was made with a combination of two questions relating to therapy complexity, and a section of direct questions asking therapist about their preference for length of therapy. The questions about complexity were added because it was assumed that complex therapy would require more time. This assessment was named *long-term-emphasis*, and was used in several places for matching recommendations.

The two specific questions were:

1) Rate the complexity of your usual or preferred methods of treatment. (1 = *My therapy tends to be extremely simple and direct*, 7 = *My therapy tends to be extremely complete and complex*).
2) To what degree do you have a narrow or wide focus during therapy? (1 = *I try to draw out and focus on a major aspect or theme of a problem*, 7 = *I focus on elaborating and appreciating the complexity of interactions of problems*).

The questions below on therapist preference for therapy length each had a choice of answers of *preferred length*, *acceptable length*, *neutral*, *prefer different length*, and *unacceptable length*, with the values of 5, 4, 3, 2, and 1 respectively assigned to these answers. The heading question was *in general, how long do you think therapy should last?*, and the five parts of this question, all of which were to be answered, were:

1) Less than 10 sessions
2) 10 - 20 sessions
3) 20 - 50 sessions
4) 50 - 100 sessions
5) Over 100 sessions

To score therapist preference for length based on these 5 questions, the following formula was used: *long term preference = 2*(over 100 preference) + (50-100 preference) + [6 - (10-20 preference)] + 2*[6 - (less than 10 preference)]*. In words, this means the preference for long term therapy is obtained by doubling the score for preference for therapy over 100 sessions, adding the preference for therapy of 50-100 sessions, adding the inverse of the preference for 10-20 sessions, and finally adding double the inverse of the preference for therapy of less than 10 sessions. The preference for therapy of 20-50 sessions was ignored in

this formula, because it seemed to be a neutral response, that is, right in the middle. Using this formula, the minimum possible score would be 2*1 + 1 + (6-5) + 2*(6-5) = 6. The maximum possible score would be 2*5 + 5 + (6-1) + 2*(6-1) = 30.

The first two questions of this assessment each have ranges of 1-7. Therefore, the minimum possible raw score for *long-term-emphasis* would be 1 + 1 + 6 = 8. The maximum possible raw score would be 7 + 7 + 30 = 44. To equalize this score, 26 was subtracted, producing a range on *long-term-emphasis* of a minimum of -18 and a maximum of +18.

Matching Calculations: Point Allocation

The total allocation for this criterion was 40 points. There were two matching recommendations within it, so each was allocated 20 points.

Matching Calculations: Symptom Relief or Broader Therapy

The first matching recommendation for this criterion was for symptom relief for simple problems, and broader depth therapy for complex problems. The raw match rating was obtained by multiplying client problem complexity by therapist rating on *symptoms vs. insight*, and then multiplying by -1. (Multiplication by -1 is required because the recommendation is for less emphasis on symptoms for more problem complexity). Client problem complexity has a possible range of -12 to +16. *Symptoms vs. insight* has a range of -59 to +59. The minimum raw rating would thus be +16 (client) x +59 therapist x-1 = -944. The maximum possible raw rating would be +16 (client) x -59 (therapist) x-1 = +944. These raw ratings were then converted into the -20 to +20 range using the formulas below, with N representing the raw rating.

*If N >0, Rating = 10 * ln((N*6.39/P)+1)* where P = 944
*If N<0, Rating = -10 * ln((-N*6.39/P)+1)*

Matching Calculations: Second Recommendation for Problem Complexity

The second matching recommendation was that the more complex clients' problems, the less social support they have, and the worse their early relationships were, the more they should be referred toward therapy that is less action oriented and more oriented toward longer term therapy. Clients' scores on their characteristics for this recommendation were given the name *CSR*, and had a range of 0 to +38. Therapists' *long-term-emphasis* had a possible range

of -18 to +18. Therapists' *action orientation* had a range of -15 to +15. To make these have the same weight, *action orientation* was multiplied by 1.2, and then rounded off, producing a range of -18 to +18.

The recommendation for complex problems is for more long term emphasis, and less action emphasis. Therefore, the raw rating was calculated by the formula *Raw-rating = CSR * (long-term-emphasis - 1.2*action orientation)*. The minimum possible raw rating would be 38*(-18-(+18)) = 38*(-36) = -1,368. The maximum possible raw rating would be 38*(18-(-18)) = 38*36 = +1,368. These raw ratings were then converted into the -20 to +20 range using the formulas below, with N representing the raw rating.

*If N >0, Rating = 10 * ln((N*6.39/P)+1)* where P = 1368
*If N<0, Rating = -10 * ln((-N*6.39/P)+1)*

Project Match

Short Restatement of Matching Recommendations

As described in Chapter 2, there were only two findings from Project Match that suggested matching recommendations. The first recommendation was that clients who have alcohol or other addiction problems, and also have social networks that support these addictions, should be matched with therapists who work with twelve step programs, or have other methods of replacing these social networks with more benign ones. The second recommendation was that clients who tend to have a lot of anger should be matched with therapists who practice therapy that is particularly non-confrontational, such as Motivational Enhancement Therapy (MET).

Client Assessment: Addiction and Social Network that Supports Addiction

This was a complex assessment that required special questions that, for the most part, had no other use in the matching program. It would have been ideal to use existing instruments to assess for client addictions. However, the shortest instruments that could be found were the *Michigan Alcoholism Screening Test* (Selzer, 2000), which has 24 questions, and the *Drug Abuse Screening Test* (Skinner, 2000), which has 20 questions. These were obviously too long to include in the client questionnaire for this one assessment. Using these

tests as a guide, an short and direct series of questions was created to assess for client addictions:

1) How often do you drink alcohol? (1 = *Never*, 2 = *A few times a year*, 3 = *A few times a month*, 4 = *A few times a week*, 5 = *Every day*).
2) When you drink alcohol, do you drink alone or with other people? (Scale = 1-5, 1 = *Always alone*, 5 = *Always with other people*).
3, 4 & 5) When you drink alcohol, how often do you:
    3) Drink 1 or 2 drinks? (Always, Often, Sometimes, Seldom, Never)
    4) Drink 3 or 4 drinks?
    5) Drink 5 or more drinks?
6) To what extent do you think drinking alcohol contributes to your problems? (Scale = 1-5, 1 = *Not at all*, 5 = *A huge amount*).
7) How often do you use illegal drugs?
8) When you use illegal drugs, do you use them alone or with other people?
9) To what extent do you think drug use contributes to your problems?

Formulas were then created to assess for alcohol or drug use as problems by combining the answers to these questions. The first step was to calculate alcohol being a problem by inference from the questions about how often alcohol was used. The inference was that a great amount of use implied a problem. The basic formula was: *Alcohol-problem-by-inference = Question1*(3*Question5 + 2*Question4 - Question3) /15*. This result of this calculation was then rounded off, and any amounts over 5 set at 5. This produced a range of 0 to +5. The answer to Question 6, which is the client admitting that alcohol is a problem, was then added to the previous amount. Question 6 had a range of 1 to 5. After this addition, the total range was 1 to 10. The amount of 1 was then subtracted, producing a final score for alcohol being a problem of a minimum of 0, and a maximum of 9.

A score for drugs being a problem was determined with the formula *(Question7 + 3*Question9 - 4) / 1.78*. The result of this calculation was rounded off, also producing a possible range of 0 to +9.

The score for whether clients had social networks that supported alcohol use was the answer to Question 2, less 1. This produced a range of 0 to +4. The score for whether clients had social networks that supported drug use was the answer to Question 8, less 1. This also produced a range of 0 to +4.

The client matching characteristic was a combination of having an addiction and a

social network that supported the addiction. To obtain a score for this combination, the score for alcohol being a problem was multiplied by the score for the client having a social network that supported this addiction. A similar calculation was made for drugs. This produced two scores for addiction problems plus social network support: alcohol a problem x alcohol social network, and drugs a problem x drugs social network. As can be seen from the three paragraphs above, the minimum for each of these scores is 0 x 0 = 0, and the maximum is 9 x 4 = 36.

The final step is that the largest of the scores for alcohol or drugs was selected. This was the final score for the client having an addiction plus having a social network that supported that addiction, with a range of 0 to +36.

Client Assessment: Anger

Clients were assessed for their tendency to be angry through three specific questions plus one domain from the NEO Five Factor Inventory:

1) I feel angry: Never(1), Seldom (2), Sometimes (3), Often (4), Always (5)
2) I feel irritated: Never(1), Seldom (2), Sometimes (3), Often (4), Always (5)
3) I am quick tempered: Never(1), Seldom (2), Sometimes (3), Often (4), Always (5)
4) Agreeableness (A) from the NEO Five Factor Inventory.

The formula for client anger was Anger = Question1 + Question2 + Question3 + 2*(6 - NEO-A). (The inverse of NEO-A had to be used because the higher the A, the more agreeable, and the assessment was for lack of agreeableness). The minimum possible score would be 1 + 1 + 1 + 2 = 5. The maximum possible score would be 5 + 5 + 5 + 10 = 25. To make positive scores indicate anger, it was necessary to find a score above which a client would be considered angry. It was decided that answers at or below *sometimes* on the first three questions, plus an *agreeableness* of 4, would be a very low score, and anything above that could be considered having at least some anger. These answers would have produced a score of +10. Therefore, 10 was subtracted from the scores, producing a range of -5 to +15. Any scores below 0 were set to 0, so that 0 represented clients below the cutoff point for this matching recommendation. this produced a final score for client anger with a range of 0 to +15.

Therapist Assessment: Recommendation for Client Addictions

The assessment of whether therapists work with twelve step programs, or have other methods of helping clients replace social networks that support their addictions, was made with just two questions:

1) How often do you work with, or refer to, 12 step programs? (1 = *Never*, 2 = *Seldom*, 3 = *Sometimes*, 4 = *Often*, 5 = *Usually*).
2) How important to your therapy is replacing these clients' social networks that support their addictions? (1 = *Most important*, 5 = *Completely unimportant*).

The score was obtained by adding the values for the answers on these two questions. This resulted in a minimum of 1 + 1 = 2, and a maximum of 5 + 5 = 10. To equalize this range, 6 was subtracted, resulting in a range of -4 to +4.

Therapist Assessment: Level of Confrontation

The assessment of therapists' level of confrontation in therapy was through two questions:

1) In general, how confrontational is your therapy?
2) How directive are you with clients during therapy? (1 = *Not directive at all: I never give clients explicit directions*, 7 = *Extremely directive: clients are expected to follow my directions and guidance*).

The score was 2*Question1 + Question2. (The first question was doubled because it is more directly applicable to the quality being assessed). This produced a possible range of a minimum of 2 + 1 = 3, and a possible maximum of 14 + 7 = 21. To equalize the scores, 12 was subtracted, producing a range of -9 to +9.

Matching Calculations: Point Allocation

The total allocation for this criterion was 40 points. There were two matching recommendations within it, so each was allocated 20 points.

Matching Calculations: Replacing Social Networks for Clients with Addictions

This calculation was done by multiplying the score for the client having an addiction plus having a social network that supported that addiction (range = 0-36) by the score for the therapist working with twelve step programs or having other methods of helping clients replace social networks that support their addictions (range = -4 to +4). The minimum possible raw rating would be 36*(-4) = -144. The maximum would be 36*(+4) = +144. These

raw ratings were then converted into the -20 to +20 range using the formulas below, with N representing the raw rating.

If N >0, *Rating = 10 * ln((N*6.39/P)+1)* where P = 144
If N<0, *Rating = -10 * ln((-N*6.39/P)+1)*

Matching Calculations: Client Anger and Therapist Confrontation

This calculation was made by multiplying client level of anger by therapist level of confrontation. This product was then multiplied -1, since the recommendation is for less confrontation for more anger. The minimum possible raw rating would be 15*(-9) = -135. The maximum would be 15*(+9) = +135. These raw ratings were then converted into the -20 to +20 range using the formulas below, with N representing the raw rating.

If N >0, *Rating = 10 * ln((N*6.39/P)+1)* where P = 135
If N<0, *Rating = -10 * ln((-N*6.39/P)+1)*

Client Tolerance for Treatment Complexity

Short Restatement of Matching Recommendations

This was a very simple matching criterion, with only one matching recommendation. This was that clients' tolerance for complexity should be matched to the complexity of therapy.

Client Assessment

Clients were assessed for their tolerance for complexity with two questions:

1) In solving problems, what is your preference for simplicity versus complexity (assume complex solutions are more complete)? (1 = *I prefer the simplest solutions possible*, 7 = *I prefer a solutions that are complex enough to take into account all factors*).
2) How well do you tolerate complexity? (1 = *I tolerate complexity very poorly*, 7 = *I tolerate complexity extremely well*).

The score for this assessment was 2*Question1 + Question2. This produced a minimum of 2 + 1 = 3, and a maximum of 14 + 7 = 21. To equalize these scores, 12 was subtracted from the score, producing a final score range of -9 to +9.

Therapist Assessment

Therapists were assessed for the usual complexity of their treatments with three questions:

1) Rate the complexity of your usual or preferred methods of treatment. (1 = *My therapy tends to be extremely simple and direct*, 7 = *My therapy tends to be extremely complete and complex*).
2) To what degree do you have a narrow or wide focus during therapy? (1 = *I try to draw out and focus on a major aspect or theme of a problem*, 7 = *I focus on elaborating and appreciating the complexity of interactions of problems*).
3) To what degree do either of these descriptions describe your therapy? (1 = *Straightforward, practical, symptom-focused, educational, and supportive*, 7 = *Provocative, imaginative, involves novel thinking and experiences, focuses on self-exploration and discovery, and/or involves paradigm shifts*).

The score for this assessment was 2*Question1 + Question2 + Question3. This produced a minimum score of 2 + 1 + 1 = 4, and a maximum of 14 + 7 + 7 = 28. To equalize the score, 16 was subtracted, producing a final score range of -12 to +12.

Matching Calculations

The raw rating was the client's tolerance for complexity multiplied by the therapist's usual treatment complexity. The minimum possible raw rating would be -9 (client) x 12 (therapist) = -108. (The same minimum would result from 9 client x (-12) therapist). The maximum possible raw rating would be 9 (client) x 12 (therapist) = +108. (The same maximum would result from -9 client x (-12) therapist). These raw ratings were then converted into the -20 to +20 range using the formulas below, with N representing the raw rating.

If N >0, $Rating = 10 * ln((N*6.39/P)+1)$ where P = 108
If N<0, $Rating = -10 * ln((-N*6.39/P)+1)$

Clients' Perceptions of Reality

Short Restatement of Matching Recommendations

The one recommendation in this matching criterion is that clients who think their problems are worse than they are should be matched to therapists who tend to emphasize that clients' problems are not as bad as they think, and clients who think their problems are better than they really are should be matched to therapists who emphasize that problems are worse than clients realize.

Client Assessment

The assessment of clients thinking that things are better or worse than reality was made with two questions written just for this purpose, plus one previous assessment, plus one domain from the NEO Five Factor Inventory.

1) Who believes your problems are worse, you or your family? (Scale = 1-5. *I think my problems are:* 1 = *Much worse than my family thinks*, 5 = *Much less severe than my family thinks*).
2) Who believes your problems are worse, you or your friends? (Same scale as question above).
3) The reverse of the client's level of distress and impairment as assessed in the section above titled "Level of Distress and Impairment (Recommendations from Prescriptive Psychotherapy)." As described in that section, the possible score range for this assessment was -11 to +11. The reverse is taken by multiplying by -1, which produces the same range. It was assumed that, to some degree, the less distress clients had, the more chance they thought things were better than reality.
4) The inverse of the score on the client's Neuroticism (N) domain from the NEO Five Factor Inventory. N has a range of 1-5. The inverse was taken by subtracting the value of N from 6. It was assumed that the lower clients' N, the more they might think that things were better than reality.

The score for clients thinking things were better than reality (as opposed to worse) was determined by 10*Question1 + 10*Question2 + Question3 + 10*Question4. The minimum possible score would be 10 + 10 + (-11) + 10 = 19. The maximum possible score would be 50 + 50 + 11 + 50 = 161. To equalize scores, 90 was subtracted, producing a possible range of scores of -71 to +71.

Therapist Assessment

Therapists were assessed for their emphasis that clients' problems were worse or better

than the clients thought with two questions.

1) To what degree do you focus on recognizing the severity of problems vs. optimism about overcoming problems? (1 = *I try to help clients understand that their problems are not as bad as they think*, 7 = *I try to help clients recognize the severity of their problems*).
2) To what degree do you focus on acceptance of problems vs. overcoming problems? (1 = *I focus on clients learning ways to accept their problems and live with them*, 7 = *I focus on clients learning ways to overcome their problems*).

The raw score for this assessment was 4*Question1 + Question2. The minimum possible score would be 4 + 1 = 5. The maximum possible raw score would be 28 + 7 = 35. To equalize the score, 20 was subtracted, producing a final score range of -15 to +15.

Matching Calculation

The raw ratings was the client level of thinking things were better than reality times the therapist level of emphasizing the severity of problems. The minimum possible raw rating would be 71 (client) x -15 (therapist) = -1,065. (The same minimum would result from -71 client x 15 therapist). The maximum possible raw rating would be 71 (client) x 15 (therapist) = +1,065. (The same maximum would result from -71 client x (-15) therapist). These raw ratings were then converted into the -20 to +20 range using the formulas below, with N representing the raw rating.

If N >0, $Rating = 10 * ln((N*6.39/P)+1)$ where P = 1065
If N<0, $Rating = -10 * ln((-N*6.39/P)+1)$

Anaclitic and Introjective Dimensions

Short Restatement of Matching Recommendations

The recommendation for introjective clients was that they should be matched with therapists who are less direct, and who practice therapy that tends to be less time limited. Anaclitic clients should be matched to therapists who are more direct and openly friendly.

Client Assessment

Blatt, Shahar, and Zuroff (2002, p 320) suggest four ways of assessing anaclitic and introjective types of depression. The shortest method is the Dysfunctional Attitudes Scale (DAS), which was designed by Arlene Weissman to measure cognitive distortions, especially those related to depression (Weissman, 2000, p. 263). According to Blatt et al., factor

analysis of the DAS has identified two principal factors. *Need for approval* corresponds to the anaclitic style, and *perfectionism* corresponds to the introjective style. Although the DAS was designed for use with depression, it was hoped it would still work for the matching program, since Blatt et. al recommend it for measuring their two personality traits, and since these two personality traits show themselves in psychopathology.

The original DAS contained 100 questions, but has since been shortened to 40 questions (Weissman, 2000). This was still too long for the time and space limitations of the client questionnaire. Therefore, an attempt was made to condense the DAS by combining the results from the two major factor analysis reports of the DAS in the literature. Cane, Olinger, Gotlib, and Kuiper (1986) found the two factors referred to by Blatt et. al, which they called *performance evaluation* and *approval by others*. *Performance evaluation* corresponds to Blatt et al.'s *perfectionism*, and *approval by others* corresponds to Blatt et al.'s *need for approval*. Beck, Brown, Steer, and Weissman (1991) found 9 factors, two of which they called *need for approval* and *success/perfectionism*.

There are 5 questions from the DAS that appear in both Cane et al.'s *approval by others* factor and Beck et al.'s *need for approval* factor. These 5 questions were used in the client questionnaire to determine *need for approval*, which was taken as the measurement of anaclitic style for the matching program. These questions are:

1) My value as a person depends greatly on what others think of me.
2) What other people think about me is very important.
3) If others dislike you, you cannot be happy.
4) I do not need the approval of other people in order to be happy.
5) I cannot be happy unless most people I know admire me.

There are 6 questions that appear in both Cane et al.'s *performance evaluation* factor and Beck et al.'s *success/perfectionism* factor. These 6 questions were used in the client questionnaire to determine *perfectionism*, which was taken as the measurement of introjective style for the matching program. These questions are:

1) If I do not do as well as other people, it means I am an inferior human being.
2) If I fail at my work, then I am a failure as a person.
3) If I do not do well all the time, people will not respect me.
4) If I am to be a worthwhile person, I must be truly outstanding in at least one major respect.
5) People will probably think less of me if I make a mistake.

6) People who have good ideas are more worthy than those who do not.

The DAS is answered on a Likert scale with 7 choices. This was reduced to 5 choices for the client questionnaire. After word answers were transferred to numbers, each question had a range of 1-5. Therefore, the minimum possible score for *anaclitic* was 5 x 1 = 5, and the maximum possible score was 5 x 5 = 25. To equalize scores, 15 was subtracted, producing a range of -10 to +10. Since the answer that corresponds to the score of 3 on any question was *neutral*, a total of all 3's was considered to be neutral. This is equivalent to a score of 0 after subtracting 15 for equalization. Therefore, since the matching recommendation was for clients positive on the *anaclitic* style, all scores less than 0 were set to 0. This produced a final score range for *anaclitic* of 0 to +10.

The minimum possible score for *introjective* was 6 x 1 = 6. The maximum possible score was 6 x 5 = 30. To equalize scores, 18 was subtracted, producing a range of -12 to +12. Again, because the matching recommendation was for clients positive on this style, all scores below 0 were set to 0. The produced a final score range for *introjective* of 0 to +12.

Therapist Assessment: Directness

Therapist directness was assessed with the following questions:

1) How much direction or control do you usually exert over what your clients discuss during therapy?
2) How directive are you with clients during therapy? (1 = *Not directive at all: I never give clients explicit directions*, 7 = *Extremely directive: clients are expected to follow my directions and guidance*).
3) In general, how confrontational is your therapy?
4) How often do you give specific advice to clients?
5) To what degree is your usual method of therapy structured?

The score was determined by multiplying all the answers by 2 except for Question 5, and then added them. The minimum possible score was 2 + 2 + 2 + 2 + 1 = 9. The maximum possible score was 14 + 14 + 14 + 14 + 7 = 63. To equalize scores around zero, 36 was subtracted producing a possible score range of -27 to +27. In order to make this score equivalent to other scores used in this criterion, this score was then multiplied by 2/3, producing a final score range of -18 to +18.

Therapist Assessment: Therapy Less Time Limited

A therapist emphasizing therapy that is less time limited was assumed to be equivalent to a therapist emphasizing longer term therapy. Therefore, the previous measurement of this quality was used. This measurement was made in the section on Problem Complexity and Social Support, and was named *long-term-emphasis*. It had a range of -18 to +18.

Therapist Assessment: Openness and Friendliness

Therapist openness and friendliness was assessed with the following questions:

1) What level of intimacy usually occurs during your therapy? (1 = *I tend to stay fairly distant emotionally from my clients*, 7 = *I tend to become extremely intimate with my clients*).
2) Place yourself on the following scales:
   a) 1 = *I tend to be cooperative*, 7 = *I tend to be competitive.*
   b) 1 = *I tend to be hard-headed and tough-minded*, 7 = *I tend to be compassionate and tender-minded.*
   c) 1 = *I tend to be argumentative*, 7 = *I tend to be conciliatory*.

The score was determined by adding the scores for all these questions, with the score for Question 2a reversed. Since there are four questions, the minimum possible score would be 4 x 1 = 4, and the maximum would be 4 x 7 = 28. To equalize the score around zero, 16 was subtracted, producing a possible range of -12 to + 12. To make this score equivalent to the other scores within this criterion, this score was multiplied by 1.5, producing a final possible score range of -18 to +18.

Matching Calculations: Point Allocation

The total allocation for this criterion was 40 points. There were two sections within this criterion: anaclitic and introjective. Therefore, each of these was allocated 20 points.

Matching Calculation: Client Anaclitic

The recommendation was that anaclitic clients should be matched to therapists who are more direct and openly friendly. The level of therapist directness was added to the level of therapist openness and friendliness to produce a combined score, which was then multiplied by the score for client anaclitic. The maximum possible raw score was therefore 10 (client) x (18 + 18) (therapist) = 10 x 36 = 360. The minimum possible raw score was 10 (client) x (-18-18) (therapist) = -360. The raw rating was converted into the -20 to +20 range using the formulas below, with N representing the raw rating.

If N >0, $Rating = 10 * ln((N*6.39/P)+1)$ where P = 360

If N<0, *Rating = -10 * ln((-N*6.39/P)+1)*

Matching Calculation: Client Introjective

The recommendation was that introjective clients should be matched with therapists who are less direct, and who practice therapy that is less time limited. Therefore, the level of therapist directness was subtracted from the level of *long-term-emphasis* of therapy, and this amount multiplied by the score for client introjective. The maximum possible raw rating was therefore 12 (client) x (18 -(-18)) (therapist) = 12 x 36 = 432. The minimum possible raw rating was 12 (client) x (-18 -18) (therapist) = 12 x (-36) = - 432. The raw rating was converted into the -20 to +20 range using the formulas below, with N representing the raw rating.

If N >0, *Rating = 10 * ln((N*6.39/P)+1)* where P = 432
If N<0, *Rating = -10 * ln((-N*6.39/P)+1)*

Five-Factor Model of Personality: General Considerations

Client Assessment

Clients were assessed on the five domains of Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness using the NEO Five Factor Inventory, as described in the section above about this instrument. As described in that section, and in Appendix D, two separate score ranges were calculated for these domains. For the matching recommendations made directly for these five personality domains, the scale range of -10 to +10 was used.

Matching Calculations: Point Allocation

There were 80 points allocated for matching according to the five-factor model. Because there are five domains, the 80 points was divided by 5, resulting in 16 points being allocated for the matching recommendations for each of these domains.

Five-Factor Model: Neuroticism (N)

Short Restatement of Matching Recommendations

Neuroticism (N) measures emotional instability and distress, anxiety, and insecurity. The recommendations are that the higher the N, the more therapy should emphasize longer term therapy that focuses on depth instead of symptom relief, and the less therapy should tend toward using psychopharmacology.

Therapist Assessment: Longer Term Emphasis

The assessment for therapists emphasizing longer term therapy was previously described in the section on Problem Complexity and Social Support, and was named *long-term-emphasis*. It had a range of -18 to +18.

Therapist Assessment: Symptom Relief Versus Depth

This assessment was made by using the therapist assessment from the Client Coping Style section, which was named *symptoms vs. insight*. As described in that section, *symptoms vs. insight* has a range of -59 to +59, with minus numbers representing concentration on insight, and positive numbers representing concentration on symptom relief.

Therapist Assessment: Emphasis on Not Using Psychopharmacology

This assessment was made with one question:

1) What is your feeling about using psychopharmacology (medication) in conjunction with your therapy? (1 = *Medications are usually useful, and should probably be tried for most clients with serious problems*, 7 = *Medications should be used very sparingly, and only tried in the most extreme cases, or after most other methods have been unsuccessful*).

The score for this question was multiplied by 4, producing a range 1 x 4 = 4 to 7 x 4 = 28. To equalize the score, 16 was subtracted, producing a possible score range of -12 to +12. Positive numbers indicate an emphasis on not using medication, which is the recommendation for higher N.

Matching Calculations

The recommendation was the higher the client N, the longer the therapy, the less symptom relief, and the less emphasis on medications. Therefore, to calculate the raw rating, client N was multiplied by combination of the score for *long-term-emphasis* plus the score for less emphasis on psychopharmacology, less the score for *symptoms vs. insight*. The maximum

possible raw rating would be 10 (client) x (18 + 12 -(-59)) (therapist) = 10 x 89 = 890. This same maximum would be obtained by -10 x (-18 + (-12) -(+59)). The minimum possible raw rating would be 10 (client) x (-18 + (-12) -(+59)) (therapist) = 10 x (-89) = -890. This same minimum would be obtained by -10 x (18 + 12 -(-59)). The raw rating was converted into the -16 to +16 range using the formulas below, with N representing the raw rating.

If N >0, $Rating = 8 * ln((N*6.39/P)+1)$ where P = 890
If N<0, $Rating = -8 * ln((-N*6.39/P)+1)$

Five-Factor Model: Extraversion (E)

Short Restatement of Matching Recommendations

Extraversion (E) reflects preference for interpersonal interactions and social situations, and being outgoing versus being introverted. The matching recommendations are that the higher the E, the lower the structure should be, and the higher the spontaneous speech and social interaction required by the therapy should be.

Therapist Assessment: Therapy Structure

The amount of structure in therapy was already assessed for the Level of Distress and Impairment section above. It had a range of -9 to +9. For this section, to balance the score with the other scores in this section, this score for amount of structure was multiplied by 3. This produced a possible score range of -27 to +27.

Therapist Assessment: Spontaneous Speech Required by Therapy

This assessment was made with one question:

1) How much direction or control do you usually exert over what your clients discuss during therapy? (1 = *No direction or control; subjects of discussion are completely up to the client*, 7 = *Complete direction and control; I direct as much as possible what is discussed*).

It was assumed that the less direction a therapist exerted over what was discussed, the more the client would have to choose what was discussed, and thus the more spontaneous speech required. The score for this question was reversed by subtracting it from 8. The score was balanced with the other scores in this section by multiplying by 4. The minimum raw score was thus 4 x 1 = 4, and the maximum was 4 x 7 = 28. To equalize this score around 0, 16 was subtracted, producing a final score range of -12 to +12.

Therapist Assessment: Social Interaction Required by Therapy

The amount of social interaction in therapy was assessed with 4 questions:

1) What level of intimacy usually occurs during your therapy? (1 = *I tend to stay fairly distant emotionally from my clients*, 7 = *I tend to become extremely intimate with my clients*).
2) What is the general level of emotional intensity during your therapy sessions? (1 = *My therapy sessions generally have extremely low emotional intensity*, 7 = *My therapy sessions generally have extremely high emotional intensity*).
3) To what extent is your therapy under your control, vs. collaborative with your clients? (1 = *I consider myself an expert therapist, whose job is to guide and instruct my non-expert clients*, 7 = *I consider my clients equally as expert as myself, and I am as collaborative with them as possible*).
4) In general, how confrontational is your therapy? (1 = *My therapy is almost always completely non-confrontational*, 7 = *My therapy tends to be very direct and confrontational*).

The score was determined by adding the answers to these four questions. The minimum possible score would be 4 x 1 = 4, and the maximum would be 4 x 7 = 28. To equalize around zero, 16 was subtracted, producing a final score range of -12 to + 12.

Matching Calculations

The matching recommendation for high E was for more spontaneous speech and social interaction, but for less structure. Therefore, to calculate the raw rating, client E was multiplied by combination of the score for *spontaneous speech* plus the score for *social interaction*, less the score for *structure*. The maximum possible raw rating would be 10 (client) x (12 + 12 -(-27)) (therapist) = 10 x 51 = 510. This same maximum would be obtained by -10 x (-12 + (-12) -(+27)). The minimum possible raw rating would be 10 (client) x (-12 + (-12) -(+27)) (therapist) = 10 x (-51) = -510. This same minimum would be obtained by -10 x (12 + 12 -(-27)). The raw rating was converted into the -16 to +16 range using the formulas below, with N representing the raw rating.

If N >0, $Rating = 8 * ln((N*6.39/P)+1)$ where P = 510
If N<0, $Rating = -8 * ln((-N*6.39/P)+1)$

Five-Factor Model: Openness (O)

Short Restatement of Matching Recommendations

Openness measures openness to new experiences, appreciation of culture and art, imagination, creativity, and rebelliousness. The higher clients are on O, the more their therapy should be provocative, imaginative, involve novel thinking and experiences, focus on self-exploration and discovery, and/or involve paradigm shifts. The lower clients are on O, the more their therapy should be straightforward, practical, symptom focused, educational, and supportive.

Therapist Assessment

Therapist assessment was made with one question created specifically for this recommendation which used the exact language of the recommendation, plus a previously used question and a previous assessment for a different criterion. The question created for this recommendation was:

1) To what degree do either of these descriptions describe your therapy? (1 = *Straightforward, practical, symptom-focused, educational, and supportive*, 7 = *Provocative, imaginative, involves novel thinking and experiences, focuses on self-exploration and discovery, and/or involves paradigm shifts*).

The previously used question was:

2) Rate the complexity of your usual or preferred methods of treatment. (1 = *My therapy tends to be extremely simple and direct*, 7 = *My therapy tends to be extremely complete and complex*).

The previous assessment was *symptoms vs. insight* from the Client Coping Style section. As described in that section, *symptoms vs. insight* has a range of -59 to +59. For this assessment, this score was divided by 5.9, and then rounded off. This produced a range of -10 to +10. This score was then multiplied by -1, to make this assessment equivalent to the two questions above, with positive numbers now representing concentration on insight, and negative numbers representing concentration on symptom relief. This assessment with these changes will be called here *reversed symptoms vs. insight*.

The total score for this assessment was 8*Question1 + Question2 + *reversed symptoms vs. insight*. Question 1 was multiplied by 8 because it used the exact wording of the recommendation, and thus was the most relevant to this assessment. The minimum possible

raw score would be 8*1 + 1 -10 = 8 + 1 - 10 = -1. The maximum possible raw score would be 8*7 + 7 + 10 = 56 + 7 + 10 = 73. To equalize scores around zero, 36 was subtracted, producing a possible range of -37 to +37.

Matching Calculation

To calculate the raw match rating, client O was multiplied by the therapist assessment from above. The maximum possible raw rating would be 10 (client) x 37 (therapist) = 370. This same maximum would be obtained by -10 (client) x (-37) (therapist). The minimum possible raw rating would be 10 (client) x -37 (therapist) = -370. This same minimum would be obtained by -10 (client) x 37 therapist. The raw rating was converted into the -16 to +16 range using the formulas below, with N representing the raw rating.

If N >0, $Rating = 8 * ln((N*6.39/P)+1)$ where P = 370
If N<0, $Rating = -8 * ln((-N*6.39/P)+1)$

Five-Factor Model: Agreeableness (A)

Short Restatement of Matching Recommendations

Agreeableness (A) reflects friendliness, compassion, cooperativeness, and, in the opposite direction, antagonism and hostility. The matching recommendation is that clients low on A should be matched to therapy that has a relatively high focus on symptoms and support, and has a low level of direct confrontation.

Therapist Assessment

Focus on symptoms was assessed with two questions:

1) How much does your therapy focus on alleviation of symptoms, vs. on depth (underlying causes of problems)? (1 = *Almost exclusively on alleviation of symptoms*, 7 = *Almost exclusively on the underlying causes of problems*).
2) To what degree do either of these descriptions describe your therapy? (1 = *Straightforward, practical, symptom-focused, educational, and supportive*, 7 = *Provocative, imaginative, involves novel thinking and experiences, focuses on self-exploration and discovery, and/or involves paradigm shifts*).

Focus on support was assessed by:

3) The talk-subject *providing direct reassurance and/or support to clients*.
4) The help-way *[clients] develop more hope that they can solve their problems.*

Level of confrontation was assessed by one question:

5) In general, how confrontational is your therapy? (1 = *My therapy is almost always*

completely non-confrontational, 7 = *My therapy tends to be very direct and confrontational*).

The score of a talk-subject is just its order rating, with a range of 1 to 4. To balance with the other questions, therefore, Question 3 was multiplied by 2, producing a range of 2 to 8. The score of a help way has the range 2 to 12. The other three questions had, as usual, ranges of 1 to 7 each. So that this assessment measured focus on symptoms, the scores on the first two questions had to be reversed by subtracting them from 8. So that this assessment measured lack of confrontation, the score on Question 5 had to be likewise reversed. The final raw score was then the sum of these amounts. The minimum possible raw score would be 1 + 1 + 2*1 + 2 + 1 = 7. The maximum possible raw score would be 7 + 7 + 2*4 + 12 + 7 = 41. To equalize scores around zero, 24 was subtracted, producing a possible range of -17 to +17.

Matching Calculation

The matching recommendation was for clients low on A. There was no recommendation for clients high on A. Therefore, A was first multiplied by -1, and then all values of A below 0 were set to 0. This produced a value for *A reversed*, with a possible range of 0 to +10, where the higher the number, the less a client is agreeable, and more the client is assumed to be hostile and antagonistic. To calculate the raw match rating, this value of client *A reversed* was multiplied by the therapist assessment from above. The maximum possible raw rating would be 10 (client) x 17 (therapist) = 170. The minimum possible raw rating would be 10 (client) x -17 (therapist) = -170. The raw rating was converted into the -16 to +16 range using the formulas below, with N representing the raw rating.

If N >0, $Rating = 8 * ln((N*6.39/P)+1)$ where P = 170
If N<0, $Rating = -8 * ln((-N*6.39/P)+1)$

Five-Factor Model: Conscientiousness (C)

Short Restatement of Matching Recommendations

Conscientiousness (C) measures organization, persistence in pursuing goals, focus, self-discipline, and motivation. The matching recommendation is that clients low on C should be matched to therapy that requires little hard work, has little discomfort, doesn't include

homework, has a high amount of structure, and emphasizes behavior therapy and skills training.

Therapist Assessment

Hard work not required and discomfort not occurring was assessed with the reverse of the following two questions (i.e., the answers were subtracted from 8):

1) How hard do clients have to work to obtain good results from your therapy? (1 = *My therapy will produce good results for clients even if they do not work hard*, 7 = *My therapy requires clients to work hard in order to obtain good results*).
2) In general, how confrontational is your therapy? (1 = *My therapy is almost always completely non-confrontational*, 7 = *My therapy tends to be very direct and confrontational*).

Homework not included in therapy was assessed with the reverse of the following two questions:

3) To how many of your clients do you assign homework? (1 = *I assign homework to almost none of my clients*, 7 = *I assign homework to almost every client*).
4) When you assign homework to a client, how often do you do this? (1 = *I almost never assign homework to clients*, 7 = *I assign homework for clients after every session*).

Amount of structure in therapy was assessed with two questions:

5) To what degree is your usual method of therapy structured? (1 = *My therapy is usually almost completely unstructured*, 7 = *My therapy is usually very highly structured*).
6) To what degree is what happens during your therapy planned? (1 = *I am extremely flexible, and don't plan where my therapy is going ahead of time*, 7 = *I use a specific treatment plan for each client, which I follow very closely*).

Emphasis on behavioral therapy and skills training was assessed with one help-way:

7) The help-way *develop new skills or learn new ways to behave in the outside world.* For this assessment, the *order* score (range 1 to 7)was multiplied by 3, and the *how-often* score (range 1 to 5) was multiplied by 4. This produced a minimum possible score for this help-way of 3*1 + 4*1 = 7, and a maximum of 3*7 + 4*5 = 41.

The total raw score for the overall assessment of hard work not required, discomfort not occurring, homework not included, structure of therapy high, and new skills being emphasized, was calculated with the formula 4*Question1 + 2*Question2 + 3*Question3 + 3*Question4 + 5*Question5 + Question6 + Question7. The minimum possible raw score would be (4*1 + 2*1) + (3*1 + 3*1) + (5*1 + 1) + 7 = 6 + 6 + 6 + 7 = 25. The maximum possible raw score would be (4*7 + 2*7) + (3*7 + 3*7) + (5*7 + 7) + 41 = 42 + 42 + 42 + 41

= 167. As can be seen from the groupings in the parentheses in these calculations, the multipliers were chosen to balance the scores among the four components of this therapist assessment. To equalize the score around zero, 96 was subtracted from the raw score, producing a final score with a range of -71 to +71.

Matching Calculation

The matching recommendation was for clients low on C. There was no recommendation for clients high on C. Therefore, C was first multiplied by -1, and then all values of C below 0 were set to 0. This produced a value for *C reversed*, with a possible range of 0 to +10, where the higher the number, the less a client is conscientious. To calculate the raw match rating, this value of client *C reversed* was multiplied by the therapist assessment from above. The maximum possible raw rating would be 10 (client) x 71 (therapist) = 710. The minimum possible raw rating would be 10 (client) x -71 (therapist) = -710. The raw rating was converted into the -16 to +16 range using the formulas below, with N representing the raw rating.

If N >0, $Rating = 8 * ln((N*6.39/P)+1)$ where P = 710
If N<0, $Rating = -8 * ln((-N*6.39/P)+1)$

Affiliation and Control

Short Restatement of Matching Recommendations

Affiliation refers to friendliness, and ranges from very hostile to very friendly. *Control* measures dominance versus submissiveness. The recommendation for *affiliation* is that friendly clients should be matched to friendly therapists, and hostile clients to hostile therapists. The recommendation for *control* is that submissive clients should be matched to dominant therapists, and dominant clients to submissive therapists.

Client Assessment: Affiliation

Client friendliness was assessed by using the Agreeableness score from the NEO Five Factor Inventory. The range of -10 to +10, one of the two ranges calculated, was used for this criterion.

Client Assessment: Control

There are many instruments available for assessing control and affiliation (Kiesler, 1992). Kiesler recommends in particular the Structural Analysis of Social Behavior Intrex questionnaire (SASB). However, an assessment of client affiliation had already been made in the client questionnaire with the NEO-FFI, as explained above. Therefore, because of space and time limitations, it was decided to assess client submissiveness with four questions specifically created for this assessment.

1) In a group of people, are you usually a leader or a follower? (1 = *I am usually a leader*, 7 = *I am usually a follower*).
2) How do you feel about giving orders to other people? (1 = *I like giving orders*, 7 = *I dislike giving orders*).
3) How do you feel about following orders from other people? (1 = *I like following orders*, 7 = *I dislike following orders*). The answer to this question was reversed, to make higher numbers indicate more submissiveness.
4) If it was completely up to you, would you prefer to be a leader or a follower? (1 = *I would prefer to lead other people*, 7 = *I would prefer to follow other people*).

The raw total for submissiveness was the sum of these four questions. The minimum possible raw score would be 4*1 = 4, and the maximum would be 4*7 = 28. To equalize scores around zero, 16 was subtracted. This produced a final score of -12 to +12, with positive numbers indicating submissiveness, and negative numbers indicating dominance.

Therapist Assessment: Affiliation

Therapist friendliness was assessed using the same score as the assessment of therapist openness and friendliness in the Anaclitic and Introjective section above. As described in that section, the possible range for friendliness would be -12 to +12.

Therapist Assessment: Control

Therapist dominance was assessed with the following eight questions:

1) Place yourself on the following scales:
   a) 1 = *I like to lead others*, 7 = *I like to follow others*.
   b) 1 = *In a group of people, I usually am a leader*, 7 = *In a group of people, I usually am a follower*.
   c) 1 = *I like giving orders*, 7 = *I dislike giving orders*.
   d) 1 = *I like following orders*, 7 = *I dislike following orders*.

The answers to questions 1a, 1b, and 1c were reversed, so that these questions measured dominance as opposed to submissiveness/

2) How much direction or control do you usually exert over what your clients discuss during therapy? (1 = *No direction or control; subjects of discussion are completely up to the client*, 7 = *Complete direction and control; I direct as much as possible what is discussed*).
3) How directive are you with clients during therapy? (1 = *Not directive at all: I never give clients explicit directions*, 7 = *Extremely directive: clients are expected to follow my directions and guidance*).
4) To what extent is your therapy under your control, vs. collaborative with your clients? (1 = *I consider myself an expert therapist, whose job is to guide and instruct my non-expert clients*, 7 = *I consider my clients equally as expert as myself, and I am as collaborative with them as possible*). The answer to this question was reversed, so that higher numbers would indicate more dominance.
5) In general, how confrontational is your therapy? (1 = *My therapy is almost always completely non-confrontational*, 7 = *My therapy tends to be very direct and confrontational*).

The total raw score was the sum of these eight answers. The minimum possible raw score would be 8*1 = 8, and the maximum would be 8*7 = 56. To equalize the scores around zero, 32 was subtracted, producing a final score with a possible range of -24 (submissive) to +24 (dominant).

Matching Calculations: Point Allocation

The total allocation for this criterion was 40 points. There were two matching recommendations within it, so each was allocated 20 points.

Matching Calculation: Affiliation

The recommendation was that friendly clients be matched to friendly therapists, and hostile clients to hostile therapists. To calculate the raw match rating, client Agreeableness from the NEO-FFI was multiplied by therapist *friendliness* from above. The maximum possible raw rating would be 10 (client) x 12 (therapist) = 120. This same maximum would be obtained by -10 (client) x (-12) (therapist). The minimum possible raw rating would be 10 (client) x -12 (therapist) = -120. This same minimum would be obtained by -10 (client) x 12 therapist. The raw rating was converted into the -20 to +20 range using the formulas below, with N representing the raw rating.

If N >0, $Rating = 10 * ln((N*6.39/P)+1)$ where P = 120
If N<0, $Rating = -10 * ln((-N*6.39/P)+1)$

Matching Calculation: Control

The recommendation was that submissive clients should be matched to dominant

therapists, and dominant clients to submissive therapists. To calculate the raw match rating, client submissiveness as calculated above was multiplied by therapist dominance as calculated above. The maximum possible raw rating would be 12 (client) x 24 (therapist) = 288. This same maximum would be obtained by -12 (client) x (-24) (therapist). The minimum possible raw rating would be 12 (client) x (-24) (therapist) = -288. This same minimum would be obtained by -12 (client) x 24 therapist. The raw rating was converted into the -20 to +20 range using the formulas below, with N representing the raw rating.

If N >0, $Rating = 10 * ln((N*6.39/P)+1)$ where P = 288
If N<0, $Rating = -10 * ln((-N*6.39/P)+1)$

Attachment Style

Short Restatement of Matching Recommendations

Attachment theory discusses individual's manners of relating to others in terms of the attachment styles of *secure* (sometimes called *autonomous*), *avoidant* (sometimes called *dismissing*), or *ambivalent* (sometimes called *preoccupied*) (Dolan, Arnkoff, & Glass, 1993; Holmes, 1997; Slade, 1999). These styles have been defined and discussed in Chapter 2. There are several matching recommendations, all of which are based on the extent to which clients are avoidant or ambivalent.

1) Avoidant clients should be matched with an attuned, following, warm, flexible "holding" type of therapy; ambivalent clients should be matched with firm, consistent therapy with clear boundaries.

2) Avoidant clients should be matched with therapy that gets them more in touch with their emotions, and with therapists who emphasize connecting emotionally with clients; ambivalent clients should be matched to therapy with more structure.

3) Avoidant clients should be matched with longer term therapy; ambivalent clients should be matched with shorter term therapy.

Client Assessment

Assessment of clients on the dimensions of avoidance versus ambivalence was made through a complex formula, described in detail in Appendix E. The range of possible scores

was -15 (ambivalence) to +15 (avoidance).

Therapist Assessment

The first assessment used the exact language of the first recommendation:

1) What is the general emotional style of your therapy? (1 = *My therapy tends to be warm, attuned, flexible, and empathetic*, 7 = *My therapy tends to be firm and consistent, with clear boundaries*). The score for this question was reversed.

Amount of structure in therapy was assessed with two questions:

2) To what degree is your usual method of therapy structured? (1 = *My therapy is usually almost completely unstructured*, 7 = *My therapy is usually very highly structured*).
3) To what degree is what happens during your therapy planned? (1 = *I am extremely flexible, and don't plan where my therapy is going ahead of time*, 7 = *I use a specific treatment plan for each client, which I follow very closely*).

The degree to which therapists emphasize clients getting in touch with their emotions was assessed with one of the help-ways:

4) The help-way *an opportunity for deep experiencing and increased awareness of feelings and sensations*.

For this assessment, the *order* score of this help-way (range 1 to 7) was multiplied by 3, and the *how-often* score (range 1 to 5) was multiplied by 4. This produced a minimum possible score for this help-way of 3*1 + 4*1 = 7, and a maximum of 3*7 + 4*5 = 41.

The degree to which therapists emphasize connecting emotionally with clients was assessed with two questions:

5) What level of intimacy usually occurs during your therapy? (1 = *I tend to stay fairly distant emotionally from my clients*, 7 = *I tend to become extremely intimate with my clients*).
6) What is the general level of emotional intensity during your therapy sessions? (1 = *My therapy sessions generally have extremely low emotional intensity*, 7 = *My therapy sessions generally have extremely high emotional intensity*).

The assessment for therapists emphasizing longer term therapy was previously described in the section on Problem Complexity and Social Support, and was named *long-term-emphasis*. It had a range of -18 to +18.

The total raw score for this overall assessment was calculated with the formula 6*Question1 - 4*Question2 - 2*Question3 + Question4 + 4*Question5 + 2*Question6 + *long-term-emphasis*. The minimum possible raw score would be 6*1 - (4*7 + 2*7) + 7 + (4*1 + 2*1) - 18 = 6 - 42 + 6 + 7 -18 = -41. The maximum possible raw score would be 6*7 - (4*1 +

2*1) + 41 + (4*7 + 2*7) + 18 = 42 - 6 + 41 + 42 + 18 = 137. As can be seen from the groupings in the parentheses in these calculations, the multipliers were chosen to balance the scores among the components of this therapist assessment. To equalize the score around zero, 48 was subtracted from the raw score, producing a final score with a range of -89 to +89.

Matching Calculation

To calculate the raw match rating, client avoidance (versus ambivalence), as calculated above, was multiplied by the therapist assessment calculated above. The maximum possible raw rating would be 15 (client) x 89 (therapist) = 1,335. This same maximum would be obtained by -15 (client) x (-89) (therapist). The minimum possible raw rating would be 15 (client) x (-89) (therapist) = -1,335. This same minimum would be obtained by -15 (client) x 89 therapist. The allowance for this criterion was 40 points. The raw rating was converted into the -40 to +40 range using the formulas below, with N representing the raw rating.

If N >0, $Rating = 20 * ln((N*6.39/P)+1)$ where P = 1335
If N<0, $Rating = -20 * ln((-N*6.39/P)+1)$

Gunderson's Personality Dimensions

Short Restatement of Matching Recommendations

There are four completely separate matching recommendations in this criterion:

1) Anxious clients should be matched to therapists who are composed, contained, and stable, as opposed to frenetic and disorganized.

2) Hostile clients should be matched to therapists who are comfortable with hostility.

3) Depressed clients should be matched to therapists who are comfortable with depression.

4) Clients with strong senses of failure should be matched to therapists who are not extremely charismatic or optimistic.

Client Assessment: Anxiety

Clients were assessed for anxiety by using their score on the Anxiety scale of the Brief Symptom Inventory. This scale had a range of -5 to +5. For this assessment, since the recommendation is for clients with high anxiety only, all values less than 0 were set to 0. This produced a final range of scores of 0 to +5.

Client Assessment: Anger

Clients were assessed for hostility by using the previous assessment for anger for the Project Match criterion, described above. The score for client anger had a possible range of 0 to +15, where any value over 0 represented the client having some anger.

Client Assessment: Depression

Clients were assessed for depression by using their score on the Depression scale of the Brief Symptom Inventory. This scale had a range of -5 to +5. For this assessment, since the recommendation is for clients with some level of depression only, all values less than 0 were set to 0. This produced a final range of scores of 0 to +5.

Client Assessment: Sense of Failure

Client sense of failure was assessed with one question which was specifically created for this assessment:

1) How do you feel about your success in life? (1 = *I am a successful person*, 7 = *I am a failure*).

This question had a range of 1 to 7. To equalize around zero, 4 was subtracted, producing a possible range of -3 to +3. Because this matching recommendation was for clients with strong senses of failure, all values under 0 were set to 0, producing a final possible range of scores of 0 to 3, with any value over 0 indicating some sense of failure.

Therapist Assessment: Composed Versus Disorganized

This assessment was made using a question created with the same wording as the matching recommendation. This question was part of a series of questions that had the heading "Place yourself on the following scales." The left hand choice for this question (score = 1) was *I tend to be rather disorganized, and somewhat frenetic*, and the right hand choice (score = 7) was *I tend to be composed, stable, organized, and contained.*

The raw score had a possible range of 1 to 7. To equalize scores around 0, 4 was subtracted. This produced a final possible range of -3 (disorganized) to +3 (composed).

Therapist Assessment: Comfort with Hostility

Therapist comfort with hostility was assessed with one question specifically created

for this assessment:

1) How comfortable are you with hostile clients? (1 = *I am very uncomfortable with hostile clients*, 7 = *I am very comfortable with hostile clients*).

The raw score had a possible range of 1 to 7. To equalize scores around 0, 4 was subtracted. This produced a final possible range of -3 (uncomfortable) to +3 (comfortable).

Therapist Assessment: Comfort with Depression

Therapist comfort with depression was assessed with one question specifically created for this assessment:

1) How comfortable are you with depressed clients? (1 = *I am very uncomfortable with clients who are depressed*, 7 = *I am very comfortable with clients who are depressed*).

The raw score had a possible range of 1 to 7. To equalize scores around 0, 4 was subtracted. This produced a final possible range of -3 (uncomfortable) to +3 (comfortable).

Therapist Assessment: Charisma or Optimism

Two questions were used for this assessment. Both were part of the series of questions that had the heading "Place yourself on the following scales."

1) Left choice (score = 1) = *I am charismatic*; right choice (score = 7) = *I am not charismatic*.
2) Left choice (score = 1) = *I tend to be pessimistic*; right choice (score = 7) = *I tend to be optimistic*.

The score for Question 1 was reversed, so higher values would equal more charisma. Next, the question with the highest score (of the two questions above) was selected. This would indicate the highest score of either charisma or optimism. To equalize this score around 0, 4 was subtracted, producing a possible range of -3 to +3. Finally, since recommendations were for positive charisma or optimism only, any value under 0 was subtracted, producing a final range of 0 to +3.

Matching Calculations: Point Allocation

The total allocation for this criterion was 20 points. There were four separate matching recommendations within it, so each was allocated only the very small amount of 5 points.

Matching Calculation: Anxious Clients

This recommendation was that anxious clients should be matched to therapists who are composed, contained, and stable, as opposed to frenetic and disorganized. The maximum possible raw rating would be 5 (client) x 3 (therapist) = 15. The minimum possible raw rating would be 5 (client) x -3 (therapist) = -15. The raw rating was converted into the -5 to +5 range using the formulas below, with N representing the raw rating.

If N>0, $Rating = 2.5 * ln((N*6.39/P)+1)$ where P = 15
If N<0, $Rating = -2.5 * ln((-N*6.39/P)+1)$

Matching Calculation: Hostile Clients

This recommendation was that hostile clients should be matched to therapists who are comfortable with hostility. The maximum possible raw rating would be 15 (client) x 3 (therapist) = 45. The minimum possible raw rating would be 15 (client) x -3 (therapist) = -45. The raw rating was converted into the -5 to +5 range using the formulas below, with N representing the raw rating.

If N>0, $Rating = 2.5 * ln((N*6.39/P)+1)$ where P = 45
If N<0, $Rating = -2.5 * ln((-N*6.39/P)+1)$

Matching Calculation: Depressed Clients

This recommendation was that depressed clients should be matched to therapists who are comfortable with depression. The maximum possible raw rating would be 5 (client) x 3 (therapist) = 15. The minimum possible raw rating would be 5 (client) x -3 (therapist) = -15. The raw rating was converted into the -5 to +5 range using the formulas below, with N representing the raw rating.

If N>0, $Rating = 2.5 * ln((N*6.39/P)+1)$ where P = 15
If N<0, $Rating = -2.5 * ln((-N*6.39/P)+1)$

Matching Calculation: Clients with Strong Senses of Failure

This recommendation was that clients with strong senses of failure should be matched to therapists who are not extremely charismatic or optimistic. Client sense of failure had a possible score range of 0 to 3. Therapists' highest level of either charisma or optimism had a possible score range of 0 to 3. This is a negative recommendation only. That is, if a client has a strong sense of failure, then the recommendation is for whom the client should not be matched to. There is no positive recommendation about who the client should be matched to.

Therefore, the maximum possible raw rating is 0. The minimum possible raw rating is 3 (client) x 3 (therapist) x -1 = -9. The raw rating was converted into the -5 to 0 range using the formula below, with N representing the raw rating.

$Rating = -2.5 * ln((-N*6.39/P)+1)$ where P = 9

MATCHING BY CLIENT PREFERENCES FOR THERAPIST CHARACTERISTICS

Therapist Demographics

Client Assessment

Clients were asked for their preferences for therapist demographics in seven areas. These areas were:

1) Age
2) Race of ethnicity
3) Social or economic background (upbringing)
4) Marital status
5) Parental status
6) Sex (i.e., gender)
7) Sexual orientation (heterosexual, homosexual, or bisexual)

For each of these areas, clients were given several choices, one of which was "I don't care." If clients expressed a preference, they were then asked to rate the importance of their preference, from "extremely important" (scored as 4) to "not very important" (scored as 1).

In addition, as part of the demographics matching calculations, clients were asked to express their preferences for the attitudes of therapists on clients' sexual orientation, with the following questions:

8) What would you like your therapist to think about sexual orientation as a problem for homosexual or bisexual clients? (1 = *Never a problem unless a client thinks it is a problem*, 7 = *Always a problem, even if a client isn't consciously aware of it*).
9) How comfortable would you like your therapist to be with homosexual and bisexual clients? (1 = *Extremely uncomfortable*, 7 = *Extremely comfortable*).
10) How important is it that your therapist feels this way about homosexual and bisexual clients? (Scale = 1-5, 1 = *Extremely important*, 5 = *Completely unimportant*).

Therapist Assessment

Therapists were asked to rate themselves on each of the areas listed above. There were no places for therapists to rate importance, as this was only relevant for client preferences.

Matching Calculations

The first step in this calculation was to determine for each area whether clients had expressed a preference. If a clients did express a preference, then they were asked to rate the importance of their preference. This importance rating had four choices, given values of 1 to 4. This rating of importance will be called the *importance score*. If there was no preference, the importance score for that area was set at 0. Thus there was a possible range of importance scores for each area of 0-4, with anything over 0 indicating there was a preference. The importance score for Question 10 was determined by subtracting the answer from 5, again producing a possible range of 0-4..

Potential adjustments to these importance scores will be discussed below. For now, it should be assumed that each area had a possible importance score range of 0-4. The next step was to determine, for any area in which the importance score was greater than 0, whether there was a match to the client's preferences. If a client expressed a preference, and the therapist had an answer that matched that preference, this was given a raw match rating of +1. If a client expressed a preference, and the therapist did not have an answer that matched this preference, this was given a raw match rating of -1. This raw match rating was then multiplied by the importance score, and then multiplied by 10, producing a possible match rating of -40 to +40.

For the area of therapists' attitudes about sexual orientation, a slightly different system was used. The absolute value of the difference between the client's preference and the therapist's answer for each of Question 8 and Question 9 was determined. Each of these questions had a range of answers of 1 to 7. Therefore the maximum difference in answers on each question would be 6 (e.g., client = 1, therapist = 7), and the minimum difference would be 0. The differences on the two questions were added together, producing a maximum possible raw rating of 6 + 6 = 12, and a minimum of 0 + 0 = 0. To equalize rating around 0, 6 was subtracted, producing a range of -6 to +6. This number was then multiplied by -1, so that positive scores indicated less difference in answers, and thus a better match. This rating was then multiplied by the importance score, producing a possible maximum score of 6 x 4 = 24, and a possible minimum score of -6 x 4 = -24. Finally, to make these scores equivalent to the

scores for the 7 demographic areas, the score was multiplied by 10/6, and then rounded off, producing a final possible rating range of -40 to +40.

There were 100 points allocated for the criterion of therapist demographics. As can be seen from the paragraphs above, each importance score, after multiplication by 10, was worth 10 points. If, after adding all the importance scores together, a client had a total importance score of 10, after multiplication by 10, the possible range of match ratings would be -100 to +100. However, there were 8 areas where importance was calculated, each with a range of importance score of 0-4. If a client rated each of these areas as maximum importance, the sum of importance scores would be 8 x 4 = 32. This means that potentially a client could have a match rating of 32 x 10 = 320. To correct for clients who rated many demographic areas as important, the following system was used. If the sum of importance scores (*SumIP*) was greater than 10, then the match rating for each area was reduced by multiplying it by 10/SumIP. This kept the match rating from the possibility of being less than -100 or more than +100.

Therapist Religion and Spirituality

Client Assessment

Clients were asked for their preferences for therapist religion or spirituality in four areas. These areas were:

1) Religious background
2) Current religious practice
3) Importance of religion or spirituality in therapist's life
4) Therapist's minimum level of religious or spiritual expertise

For each of these areas, clients were given several choices, one of which was “I don’t care.” If clients expressed a preference, they were then asked to rate the importance of their preference, from “extremely important” (scored as 4) to “not very important” (scored as 1).

Therapist Assessment

Therapists were asked to rate themselves on each of the areas listed above. There were no places for therapists to rate importance, as this was only relevant for client preferences.

Matching Calculations

In similar fashion to the description above for demographics, for each of the four areas in this section, the potential range of importance points was 0 to 4. For Questions 1 and 2, if a client expressed a preference, and the therapist had an answer that matched that preference, this was given a raw match rating of +1. If a client expressed a preference, and there was no match, this was given a raw match rating of -1. This number was then multiplied by the importance score for each question, and then multiplied by 10, producing possible ranges for each of -40 to +40.

For Question 3, clients had a choice of not caring, or four other non-exclusive choices (more than one choice could be selected). Therapists had 4 exclusive choices (only one choice could be selected). If a client expressed a choice, the client's choice closest to the therapist's answer was selected for calculating the match rating. The absolute value of the difference between these choices had a maximum of 3 (e.g., therapist = 1, client = 4), and a minimum of 0. Thus there would be a possible raw match rating range of 0 to 3. To equalize ratings around zero, 1.5 was subtracted, producing a range of -1.5 to +1.5. This number was then multiplied by -1, so that higher numbers indicated better matches. This number was then multiplied by the number of importance points, producing a possible maximum of 1.5 x 4 = 6, and a possible minimum of -1.5 x 4 = -6. Finally, this number was multiplied by 6.67 and rounded off, producing a final possible range of match ratings of -40 to +40.

For Question 4, clients had a choice of not caring, or four other exclusive choices. Therapists had four exclusive choices. The client choices was for the minimum acceptable level of therapist expertise. If the client expressed a choice, and if the therapist answer indicated that the therapist met that minimum level, the raw match rating was +1. If the therapist did not meet that minimum level, the raw match rating was -1. The raw rating was then multiplied by the importance score, and then multiplied by 10, producing a final possible match rating range of -40 to +40.

There were 50 points allocated for this criterion. Similarly to the situation described for therapist demographics, if a client rated each of the four areas as having a maximum importance score of 4, then a client could have a potential match rating of 4 x 4 x 10 = 160 rating points. To compensate for this problem, the importance scores for the four questions

were added. If this sum of importance scores (*SumIP*) was greater than 5, then the match rating for each area was reduced by multiplying it by 5/SumIP. This kept the match rating within the range of -50 to +50.

Therapist Values

Client Assessment

The standard method of assessing values in psychotherapy research is the Rokeach Value Survey (Rokeach, 1973). The standard Rokeach Value Survey has individuals place 18 terminal values and 18 instrumental values in order of importance as guiding principles in their lives. Instrumental values are "desirable modes of conduct" and terminal values are "desirable end-states of existence" (Rokeach, p. 7). Because of time and space limitations in the questionnaires, it was decided to only use the terminal values from this instrument in the questionnaires. Clients were asked to order these values according to how they would want their ideal therapist to order them. Again, because of time limitations, clients were asked to order these 18 terminal values into four classes instead of putting all 18 in order. These four classes were *most preferred*, *2nd most preferred*, *2nd lease preferred*, and *least preferred*. The values had to be spread out fairly evenly among these classes, with a maximum of 5 values allowed in any class. After finishing this ordering, clients were asked the following question, which produced the *importance score*:

1) How important is it that your therapist's values match what you have chosen? (Range = 1-5, 1 = *Completely unimportant*, 5 = *Extremely important*).

This client assessment is shown in Appendix B, on the Client Preference Questionnaire, Page 3.

Therapist Assessment

Therapists were asked to order the same 18 values into four classes, named most descriptive, 2nd most descriptive, 2nd least descriptive, and least descriptive. This therapist assessment is shown in Appendix A, on the Therapist Questionnaire, Page 10.

Matching Calculations

For calculating the match rating, each value was assigned a score of 1 to 4, depending

upon which class it was placed in. Client preferences on each value were then compared with therapist self-ratings. The total raw match rating was the sum of the differences in these ratings. The minimum score would obviously be 0, which would occur if a therapist rated each value in exactly the same class as a client preferred. Although the maximum difference between a client rating and a therapist rating would be 3 (e.g., client = 1, therapist = 4), the maximum raw match would not be 18 x 3 = 54, because some client and therapist ratings would have to be in the middle, with ratings of 2 or 3, and thus could produce at most difference ratings of 2. It turns out that the maximum sum of differences is 38. This maximum can occur if all differences between client and therapist ratings are 2. It can also occur if the maximum number of differences of 3 exist, which would be 10, which makes all the other differences 1.

By adding all the differences between client preferences and therapist self-ratings, there is a range of raw match ratings of 0 to 38. To equalize around zero, 19 was subtracted, producing a range of -19 to +19. This number was then multiplied by -1, so that higher numbers indicated better matches. This number was then multiplied by the client's *importance score*, which had a range of 1 to 5. Thus the final raw match rating had a possible maximum of 19 x 5 = 95, and a possible minimum of -19 x 5 = -95.

Finally, because there were 50 match rating points allowed for this criterion, this number was divided by 1.9, producing a final match rating with a possible range of -50 to +50.

Therapist Empathy Styles

Client Assessment

Clients were shown four boxes, each containing a short narrative description of one of the four different empathy styles described by Bachelor (1998). Client were asked to place these four styles in order of preference by dragging them into four separate boxes labeled *most preferred*, *2nd most preferred*, *2nd lease preferred*, and *least preferred*. Thus each empathy style had an *order score* of 1, 2, 3 or 4, depending on its order. Clients were then asked to rate how often they would like each of these types of empathy, with five choices of *always*, *usually*, *often*, *sometimes*, and *rarely*. These choices were given the values of 1, 2, 3, 4 and 5, respectively. This will be called the *how-often score*.

Clients were asked one more question, which produced the *importance score*:
1) How important is it that your therapist's empathy style match what you have chosen? (Range = 1-5, 1 = *Completely unimportant*, 5 = *Extremely important*).

This client assessment is shown in Appendix B, on the Client Preference Questionnaire, Page 4.

Therapist Assessment

Therapists were asked to order the same four empathy descriptions according to their usual or most common usage, into the four categories of *most used*, *2nd most used*, *2nd least used*, and *least used*. They were then asked to rate each empathy style as to how often they used it, with the five choices of *always*, *usually*, *often*, *sometimes*, and *rarely*. Thus therapists had an *order score* and a *how-often* score on each empathy style, equivalent to the scores for clients.

Matching Calculations

To calculate the difference in *order scores* between client preferences and therapist self-ratings, the absolute differences of the order scores for the four empathy styles were summed. If a therapist's order ratings exactly matched a client's preferences, the sum of differences would be 4 x 0 = 0. The maximum difference in the order scores for any one style would be 3 (e.g., client = 1, therapist = 4). However, similar to the situation described above in the section on therapist values, the difference between order ratings couldn't be 3 for all four styles. The maximum difference would either be 2 on all four styles, or 3 on two of the

styles, and 1 on the other two. Either of these situations would produce a sum of differences of 8. Therefore, for order scores, the maximum possible raw match rating would be 8, and the minimum would be 0. To equalize around zero, 4 was subtracted, producing a range of -4 to +4. This number was then multiplied by -1, so that higher numbers indicated better matches. Finally, to make these ratings equivalent to the *how-often* ratings (described in next paragraph), this result was multiplied by 2, producing a final possible range of raw ratings for order of -8 to +8.

To calculate the difference for *how-often scores*, the absolute differences between client preferences and therapist scores were summed. The maximum difference on any style would be 4 (e.g., client = 5, therapist = 1). The minimum would be 0. Since there were four empathy styles, and each of these scores was independent of the others, the maximum match rating would be 4 x 4 = 16. To equalize around zero, 8 was subtracted, producing a range of -8 to +8. This number was then multiplied by -1, so that higher numbers indicated better matches.

The match rating for *order*, with a possible range of -8 to +8, was then added to the match rating for *how-often*, with the same possible range. This produced a total match rating range of -16 to +16. This raw match rating was then multiplied by the client's importance score, which had a range of 1 to 5. Thus the final raw match rating had a possible maximum of 16 x 5 = 80, and a possible minimum of -16 x 5 = -80.

Finally, because there were 50 match rating points allowed for this criterion, this number was divided by 1.6, producing a final match rating with a possible range of -50 to +50.

Epistemological Styles

Selection of Assessment Instrument

As described in Chapter 2, there is some evidence from research that a useful instrument for differentiating therapists in terms of epistemological styles would be the Psycho-Epistemological Profile (PEP) (Royce & Mos, 1980). This instrument consists of 90 questions, which was much too long to be incorporated into the client and therapist

questionnaires. Using factor analysis, Royce and Mos created a shortened version of the PEP, which they call the "Revised Experimental Form VI," which has only 41 questions, with 16 questions assessing Rationalism, 16 questions assessing Metaphorism, and 8 questions assessing Empiricsm (Royce & Mos, 1980, pp. 82-86). This was still too long for the questionnaires. The goal was to have an instrument that would fit on one page (one computer screen).This goal was accomplished by reducing the number of questions to 20 by selecting the questions that had the highest factor loadings on each of the three factors. The end result was 8 Metaphorism questions, 7 Rationalism questions, and 5 Empiricism questions. This will be called the *reduced-PEP*.

As described in Chapter 2, Lyddon and Adamson (1992) studied the interaction of clients' worldviews and their preferences for types of therapy according to a system which differentiated their worldviews according to the metaphorical views of *mechanistic* or *organismic*. In their study, Lyddon and Adamson used is a 26 item questionnaire, the Organicism-Mechanism Paradigm Inventory (OMPI), that directly measures this construct. It was hoped an assessment according to this system could be incorporated into the matching system. Because of time and space considerations, two questions from the OMPI that best seemed to exemplify the dichotomy between mechanistic and organismic were selected, and added to the questionnaires. These questions asked individuals to choose between two dichotomies, using the normal system of arrows going in both directions. The two dichotomies were:

1) *The world is like a large living organism* versus *The world is like a large, complex machine*.

2) *Our knowledge is limited by our observations* versus *Our knowledge is limited by our imagination*.

Unfortunately, pilot testing showed that this attempt at tremendously simplifying the OMPI did not work, as people did not understand what these questions meant. The choices were to devote more space to this assessment, or to give up the attempt. Since a reduction of the PEP was already in the matching system for measuring epistemological styles, it was decided to delete matching according to mechanistic or organismic worldviews.

Matching by Preference Did Not Work

The attempt to match clients to therapist by preferences for therapists' epistemological styles did not work. In pilot testing, when instructed to mark how they would want their ideal therapists to answer the *reduced-PEP*, all pilot testers stated they merely answered according to how they themselves felt. In other words, their only preference, if they had one at all, was for therapists who had the same epistemological styles that they had. Because of this result during pilot testing, the attempt to match by preference for epistemological styles was changed to the one attempt in this matching program to match by similarity instead. This seemed to be justified by the finding in the pilot testing that clients' only preferences were for similarity. It also was justified by the exploratory emphasis of this study.

Client and Therapist Assessment

Clients and therapists each answered the 20 questions of the reduced-PEP. These questions are shown in Appendix B, on the Client Personality Questionnaire, Page 7, and in Appendix A, on the Therapist Questionnaire, Page 9. Each of these questions had a range of answers from 1 to 5 (1=strongly disagree, 5 = strongly agree)

There were eight questions that assessed Metaphorism (M). Each had a range of 1-5. The maximum possible score for M would be 8 x 5 = 40. The minimum possible score would be 8 x 1 = 8. To make the minimum score equal to 0, 8 was subtracted, producing a possible score range of 0 to 32. Finally, to produce a score for M on a 0-10 scale, the score was divided by 3.2.

There were seven questions that assessed Rationalism (R). Each had a range of 1-5. The maximum possible score for R would be 7 x 5 = 35. The minimum possible score would be 7 x 1 = 7. To make the minimum score equal to 0, 7 was subtracted, producing a possible score range of 0 to 28. Finally, to produce a score for R on a 0-10 scale, the score was divided by 2.8.

There were eight questions that assessed Empiricism (E). Each had a range of 1-5. The maximum possible score for M would be 5 x 5 = 25. The minimum possible score would be 5 x 1 = 5. To make the minimum score equal to 0, 5 was subtracted, producing a possible score

range of 0 to 20. Finally, to produce a score for E on a 0-10 scale, the score was divided by 2.

The final result of these scoring calculations was a score for clients and therapists on each of the three epistemological styles (M, R, and E) with possible ranges of 0-10.

Matching Calculations

To calculate the raw match rating, the absolute differences between the client's and therapist's scores on the three styles were added together. The maximum possible difference on each of the styles would be 10 (e.g., client = 0, therapist = 10), and the minimum would be 0. The maximum possible total raw match rating would therefore be 10 + 10 + 10 = 30, and the minimum would be 0 + 0 + 0 = 0. To equalize scores around zero, 15 was subtracted, producing a range of -15 to +15. This number was then multiplied by -1, so that higher numbers indicated better matches. Finally, since 50 points were allocated for this criterion, the raw rating was multiplied by 3.33, giving a final possible range of -50 to +50.

MATCHING BY CLIENT PREFERENCES FOR THERAPY CHARACTERISTICS

Length and Depth of Therapy

Client and Therapist Assessment: Therapy Length

To assess their preference for therapy length, clients were asked one five part question:

1) How long do you think your therapy should last?
   a) Less than 10 sessions
   b) 10 - 20 sessions
   c) 20 - 50 sessions
   d) 50 - 100 sessions
   e) Over 100 sessions

Each part of this question had a choice of answers of *preferred length*, *acceptable length*, *neutral*, *prefer different length*, and *unacceptable length*, with the values of 5, 4, 3, 2, and 1 respectively assigned to these answers.

Clients were then asked the question:

2) How important is it that your therapy last this amount of time? (Range = 1-5, 1 = *Completely unimportant*, 5 = *Extremely important*). This is called the *importance score*.

Therapists were asked the same first question, with the difference that the heading for the question was "In general, how long do you think therapy should last?"

Client and Therapist Assessment: Therapy Depth

Clients were asked two questions to assess their preference for therapy depth:

1) Would you prefer your therapy to have a narrow or wide focus? (1 = *Focus narrowly on just one problem*, 7 = *Focus widely on the complexity and interactions of all my problems*).
2) Would you prefer your therapist to focus directly on your symptoms, or on examining the underlying causes of your problems? (1 = *Almost exclusively on my symptoms*, 7 = *Almost exclusively on the underlying causes of my problems*).

Therapists were asked equivalent questions:

1) To what degree do you have a narrow or wide focus during therapy? (1 = *I try to draw out and focus on a major aspect or theme of a problem*, 7 = *I focus on elaborating and appreciating the complexity of interactions of problems*).
2) How much does your therapy focus on alleviation of symptoms, vs. on depth (underlying causes of problems)? (1 = *Almost exclusively on alleviation of symptoms*, 7 = *Almost exclusively on the underlying causes of problems*).

Matching Calculations: Point Allocation

The point allocation for this criterion was 50 points. From this total, 34 points was allocated for matching by preference for therapy length, and 16 points was allocated for matching by preference for therapy depth.

Matching Calculations: Therapy Length

To calculate the raw match rating, the absolute differences between the client's and therapist's scores on the five questions about therapy length were added together. The maximum possible difference on each of the questions would be 4 (e.g., client = 1, therapist = 5), and the minimum would be 0. The maximum possible total raw match rating would therefore be 5 x 4 = 20, and the minimum would be 5 x 0 = 0. To equalize scores around zero, 10 was subtracted, producing a range of -10 to +10. This number was then multiplied by -1, so that higher numbers indicated better matches. Finally, this raw match rating was multiplied by the client's *importance score*, which had a range of 1-5. This produced a possible maximum rating of 10 x 5 = 50, and a possible minimum of -10 x 5 = -50.

During pilot testing, it was observed that answers tended to cluster away from extreme answers. That is, answers were seldom 1 or 5, but were almost always between 2 and 4. Because this produced very small differences between client and therapist scores, the logarithmic system used for client characteristics was used to give more weight to smaller

differences. The raw ratings with the possible ranges of -50 to +50 were converted into the -34 to +34 range using the formulas below, with N representing the raw rating.

If N>0, *Rating = 17 * ln((N*6.39/P)+1)* where P=50
If N<0, *Rating = -17 * ln((-N*6.39/P)+1)*

Matching Calculation: Therapy Depth

The absolute values of the differences between client preferences and therapist self-ratings on each of the two questions in this section were added together. The maximum difference on either question would be 6 (e.g., client = 7, therapist = 1), while the minimum would be zero (e.g., client =3, therapist = 3). Therefore, the maximum possible raw rating after adding the two questions would be 6 + 6 = 12, while the minimum would be 0 + 0 = 0. To equalize ratings around 0, 6 was subtracted, producing a range of -6 to +6. This number was then multiplied by -1, so that positive numbers indicated less difference in answers, and thus a better match. Finally, this raw rating with a possible range of -6 to +6 was multiplied by 2.67, producing a final match rating with a possible range of -16 to +16.

Psychopharmacology

Client and Therapist Assessment

Clients were assessed for preference in this area with the question:

1) What would you like your therapist to think about using medications (drugs) in conjunction with therapy? (1 = *Medications are usually useful, and should probably be tried for most clients with serious problems*, 7 = *Medications should be used very sparingly, and only tried in the most extreme cases, or after most other methods have been unsuccessful*).

Clients were then asked the following question, which produced the importance score:

2) How important is it that your therapist feel this way about using medications? (Range = 1-5, 1 = *Completely unimportant*, 5 = *Extremely important*).

Therapists were asked:

1) What is your feeling about using psychopharmacology (medication) in conjunction with your therapy? (choices exactly the same as for clients).

Matching Calculations

The raw match rating was the absolute difference between the client preference and the

therapist self-rating on this one question. The maximum possible rating would be 6 (e.g., client = 1, therapist = 7), while the minimum would be zero (e.g., client =4, therapist = 4). To equalize ratings around 0, 3 was subtracted, producing a range of -3 to +3. This number was then multiplied by -1, so that positive numbers indicated less difference in answers, and thus a better match. Next, this raw match rating was multiplied by the client's *importance score*, which had a range of 1-5. This produced a possible maximum rating of 3 x 5 = 15, and a possible minimum of -3 x 5 = -15. Finally, this raw rating was multiplied by 3.33, producing a final match rating with a possible range of -50 to +50.

Matching Based on Preferred Characteristics of Therapy Systems

A major part of the matching system is a combination of sections allowing clients to express preferences for methods of treatment or characteristics of therapy systems, and corresponding sections for therapists to describe their preferred or usual treatments. The system of therapists describing their treatments by name or category was deliberately excluded, because most therapists either practice an eclectic mixture of therapies (Jensen, Bergin, & Greaves, 1990) or practice a specific system in a style that is not pure. In other words, among therapists practicing the same therapy system, there will be differences in style that are more relevant to referral than the theoretical differences in their systems. The system of having therapists write or record narrative descriptions of their treatments was also rejected, because it would be impractical for time reasons for clients to sort through a large number of this type of description.

The method selected instead was to attempt to create lists of as many relevant potential characteristics of therapy as possible. Four types of lists were finally selected: subjects usually talked about in therapy, methods of helping clients, types of insight or understanding, and miscellaneous other therapy characteristics. Each of these areas of therapy characteristics was allocated 50 points. Each will be discussed in a separate section below.

The first three of these areas were actual lists that clients and therapists were instructed to put into orders. This was a forced sorting method, which was used to prevent therapists from alleging that they use all methods and techniques with equal proficiency and frequency,

and to prevent clients from preferring all methods and techniques equally.

The idea of using a Q-sort technique (Rogers, 1961, p. 256) was considered and rejected. A Q-sort forces choices into categories with numbers of items approximating a normal distribution . For example, the ratio for 9 categories is 1:4:11:21:26:21:11:4:1. This type of sorting is weighted heavily on the mean. The further one is from the mean, the fewer items in each category. This would be useful for situations in which one believes that most choices will be close to the mean, and the further from the mean, the less likely the choice. This is not the case for the choices that were given to clients and therapists. In this situation, it seems that the choices were all equally likely.

Subjects Usually Talked About in Therapy ("Talk-Subjects")

Client and Therapist Assessment

Clients and therapists each divided 16 different possible subjects of discussion during therapy equally into four classes, from 1 = most preferred to 4 = least preferred, by dragging them into boxes. Thus each of the 16 talk-subjects had a rating of 1,2, 3, or 4, depending upon the class into which it was placed.

Clients were also asked to rate the importance of their preferences:

How important is it that your therapist's emphasis on subjects of discussion matches what you have chosen? (Range = 1-5, 1 = *Completely unimportant*, 5 = *Extremely important*). (The *importance score*).

The client assessment can be seen in full in Appendix B, Client Preference Questionnaire, Page 6. The therapist assessment can be seen in full in Appendix A, Therapist Questionnaire, Page 2.

Matching Calculations

The raw match rating on any one talk-subject is the difference in score between the client preference and the therapist self-rating. The maximum difference for one talk-subject would be 3 (e.g., client = 4, therapist = 1). The minimum difference would be 0. However, similar to the situation described above in the section on therapist values, the difference between order ratings couldn't be 3 for all 16 talk-subjects, since half of them have to have

scores of 2 or 3. The maximum difference would either be 2 on all 16 styles, or 3 on eight of the styles, and 1 on the other eight. Either of these situations would produce a sum of differences of 32. Therefore, the maximum possible raw match rating would be 32, and the minimum would be 0. To equalize around zero, 16 was subtracted, producing a range of -16 to +16. This number was then multiplied by -1, so that higher numbers indicated better matches. Next, this raw match rating was multiplied by the client's *importance score*, which had a range of 1-5. This produced a possible maximum rating of 16 x 5 = 80, and a possible minimum of -16 x 5 = -80. Finally, this raw rating was divided by 1.6, producing a final match rating with a possible range of -50 to +50.

Methods of Helping Clients ("Help-Ways")

Client and Therapist Assessment

Clients put a list of 7 possible ways of being helped in therapy in order of their preference. This produced the *order score*, which for any help-way had a possible value of 1 to 7, with each help-way having a different score. Clients then gave each of these help-ways a second rating of how often they would like this type of help (the *how-often score*), with possible answers from *Always* (score = 1) to *Rarely* (score = 5). Finally, clients were asked to answer the question:

How important is it that your therapist emphasizes ways of helping according to the preferences you have chosen? (Range = 1-5, 1 = *Completely unimportant*, 5 = *Extremely important*). (The *importance score*).

Therapists were asked to put the same list of help-ways into order, producing unique *order scores* of 1 to 7 on each. They were then asked to rate each help-way on how often they used it, producing *how-often scores* on each of 1 to 5.

The client assessment can be seen in full in Appendix B, Client Preference Questionnaire, Page 7. The therapist assessment can be seen in full in Appendix A, Therapist Questionnaire, Page 3.

Matching Calculations

To calculate the difference in *order scores* between client preferences and therapist

self-ratings, the absolute differences of the order scores for the seven help-ways were summed. Although the maximum difference for any one help-way would be 6 (e.g., client = 7, therapist = 1), this could only happen on one help-way, since each had a unique order score. The maximum possible difference in order scores for the seven help-ways combined, which can occur in several different ways, is 24. The minimum possible difference is obviously 0. To equalize around zero, 12 was subtracted, producing a range of -12 to +12. This number was then multiplied by -1, so that higher numbers indicated better matches.

To calculate the difference for *how-often scores*, the absolute differences between client preferences and therapist scores were summed. The maximum difference on any style would be 4 (e.g., client = 5, therapist = 1). The minimum would be 0. Since there were seven help-ways, and each of these scores was independent of the others, the maximum match rating would be 7 x 4 = 28, and the minimum would be 7 x 0 = 0. To equalize around zero, 14 was subtracted, producing a range of -14 to +14. This number was then multiplied by -1, so that higher numbers indicated better matches.

The match rating for *order*, with the possible range of -12 to +12, was then added to the match rating for *how-often*, with the possible range of -14 to +14. This produced a total possible match rating range of -26 to +26. This raw match rating was then multiplied by the client's *importance score*, which had a range of 1 to 5. Thus the final raw match rating had a possible maximum of 26 x 5 = 130, and a possible minimum of -26 x 5 = -130.

Finally, because there were 50 match rating points allowed for this criterion, this number was divided by 2.6, producing a final match rating with a possible range of -50 to +50.

Ways to Understand Clients' Problems (Types of Insight or Understanding)

Client and Therapist Assessment

Clients put a list of seven possible types of insight or ways of understanding problems in order of their preference. This produced a unique *order score* for each type of insight of between 1 and 7. Clients were than asked:

How important is it that your therapist looks at causes of problems according to the preferences you have chosen? (Range = 1-5, 1 = *Completely unimportant*, 5 = *Extremely important*). (The *importance score*).

Therapists put the same list into order of their usual amount of emphasis.

The client assessment can be seen in full in Appendix B, Client Preference Questionnaire, Page 8. The therapist assessment can be seen in full in Appendix A, Therapist Questionnaire, Page 4.

Matching Calculations

To calculate the difference in *order scores* between client preferences and therapist self-ratings, the absolute differences of the order scores for the seven types of insight were summed. As described in the section above on Help-Ways, the maximum possible difference in order scores combined would be 24, and the minimum would be 0. To equalize around zero, 12 was subtracted, producing a range of -12 to +12. This number was then multiplied by -1, so that higher numbers indicated better matches. This raw match rating was then multiplied by the client's *importance score*, which had a range of 1 to 5. Thus the final raw match rating had a possible maximum of 12 x 5 = 60, and a possible minimum of -12 x 5 = -60.

Finally, because there were 50 match rating points allowed for this criterion, this number was divided by 1.2, producing a final match rating with a possible range of -50 to +50.

Other Therapy Characteristics

General Description

This is a catch-all category, to hold a few therapist or therapy characteristics that could be used for matching, most of which had already been answered by therapists for matching on

other criteria. There were eight items in this criterion. For each of the eight, therapists were asked to rate themselves, and clients were asked to express preferences.

Client Assessment

Clients were asked the following eight questions:

1) How often would you like your therapist to use humor during therapy sessions? (1 = *I would prefer that my therapist almost never used humor*, 7 = *I would like my therapist to use humor very often*).
2) What level of intimacy with your therapist would you prefer? (1 = *I would prefer that my therapist stay fairly distant from me emotionally*, 7 = *I would prefer a very intimate relationship with my therapist*).
3) What amount of structure would you prefer in your therapy? (1 = *I would prefer therapy that is almost completely unstructured*, 7 = *I would prefer therapy that is very highly structured*).
4) To what extent would you like your therapist to think of therapy as a collaboration with you? (1 = *My therapist should consider me as a non-expert, being helped during therapy by an expert therapist*, 7 = *My therapist should consider me as an equal expert, with us working collaboratively during my therapy*).
5) Would you prefer your therapist to use standard methods, or to create novel methods? (1 = *Follow standard methods that have consistently worked well in the past*, 7 = *Create novel methods of therapy, when the therapist feels they are needed*).
6) Would you like your therapy to focus on acceptance of problems, or on overcoming problems? 1 = *I would like to focus on learning ways to accept my problems and live with them*, 7 = *I would like to focus on learning ways to overcome my problems*).
7) Would you prefer your therapist to plan your sessions ahead, or to be flexible? (1 = *Be very organized, and have a specific plan for my therapy sessions*, 7 = *Be extremely flexible, and not plan where my therapy is going ahead of time*).
8) How directive would you like your therapist to be? (1 = *Not directive at all: I do not want any specific directions or instructions from my therapist*, 7 = *Extremely directive: I would like my therapist to give me specific directions and instructions*).

Therapist Assessment

Therapists were asked the equivalent eight questions. Only the question headings are listed below, as the choice dichotomies are the extremely similar to those for the client questions shown above.

1) How often do you use humor during therapy sessions?
2) What level of intimacy usually occurs during your therapy?
3) To what degree is your usual method of therapy structured?
4) To what extent is your therapy under your control, vs. collaborative with your clients? 5) How standardized are your usual methods of therapy?
6) To what degree do you focus on acceptance of problems vs. overcoming problems?

7) To what degree is what happens during your therapy planned?
8) How directive are you with clients during therapy?

Matching Calculations

The raw match rating was the sum of the absolute differences between client preferences and therapist self-ratings on each of these eight questions. The maximum possible difference on any question would be 6 (e.g., client = 7, therapist = 1), and the minimum would be 0. Therefore, the maximum possible raw match rating, after summing all eight questions, would be 8 x 6 = 48. The minimum would be 8 x 0 = 0. To equalize around zero, 24 was subtracted, producing a range of -24 to +24. This number was then multiplied by -1, so that higher numbers indicated better matches. Finally, because there were 50 match rating points allowed for this criterion, this number was multiplied by 2.08, producing a final match rating with a possible range of -50 to +50.

MATCH RATING TOTALS

After a client completed the client questionnaire, the client was given a list of match rating totals for each therapist in the therapist database available for matching. This was accomplished by clicking a button on the initial screen of the client questionnaire, which caused a computer program to run that calculated all the match ratings described above, for each therapist. The match ratings in the two categories of client characteristics and client preferences were then summed, producing a subtotal for each category, for each therapist.

The client was not shown the subtotals for these two categories. The client was only shown the totals arrived at by adding these two subtotals. Attempts at creating these totals during pilot testing had the problem that has been previously described that the subtotals for client characteristics were much lower than those for client preferences, thus giving too little weight to characteristics, even after the logarithmic transformations.

This weighting problem was solved by adjusting the subtotals in the following manner. For a client for whom ratings were to be calculated, the highest subtotal for each of client characteristics and client preferences, among all the therapists, were found. These are called *MaxChar* and *MaxPref*. Subtotals were then adjusted according to the following formulas:

New characteristics subtotal = old characteristics subtotal x (500 / MaxChar)

New preferences subtotal = old preferences subtotal x (500 / MaxPref)

This had the result of making the therapist with the highest characteristics subtotal have an adjusted characteristic rating of 500, and the therapist with the highest preferences subtotal (which may or may not be the same therapist), have an adjusted preference rating of 500. This also had the result of equalizing the characteristic and preference ratings. Thus the highest possible match rating for any therapist would be 1000, and the lowest would be -1000.

Finally, these adjusted ratings were added together, producing a total match rating for each therapist. A typical printout for therapist match ratings (done for one of the pilot testers) is shown in Appendix F.

Although this information was not shown to any participants, various readouts were available through hidden buttons in the computer program to show the researcher subtotals before adjustments, and to also show match ratings for all the individual criteria.

CHAPTER 4: STUDY METHOD

OVERVIEW OF STUDY

This study was intended to be a multiple case study of the computerized matching program. The goal was to have 6 participant clients who were matched to participant therapists, who completed at least three therapy sessions with their therapists, who answered assessment questionnaires about their sessions after each of the first three sessions, and who then each participated in a short interview. In addition, the therapists who were matched with clients were to complete assessment questionnaires about the sessions after each of the first three sessions, and then participate in short interviews.

SEQUENCE OF STEPS FOR STUDY

The first step was to pilot test the entire matching system with both therapists and clients. Pilot testing clients were friends and relatives, some of whom had previously seen therapists, and some of whom had not. Pilot testing therapists consisted of two members of the thesis committee for this study, plus two other therapists known to the researcher.

The second step was to develop a pool of therapists to whom participant clients could be matched. To be in the pool of potential therapists, therapists had to complete the therapists questionnaire. The goal was to have at least 20 therapists in this pool, so clients would have a reasonable range of therapists to whom they could be matched.

The third step was to obtain six participant clients who were willing to participate in the study. These clients then completed their client questionnaires, and were given printouts of their match ratings to all available therapists.

The fourth step was the actual study itself. The six participant clients selected therapists from their match lists, went to at least three sessions, completed their session assessments after each of the first three sessions, and then were interviewed by the researcher. The therapists also completed their session assessments, and were interviewed.

The final step was analysis of all the data from the study.

THE PHYSICAL COMPUTER SYSTEMS

Because of the complexity of the questionnaires, and because this is a new system, it was assumed that therapists and clients would have trouble with their questionnaires, and need some help. In addition, there was a possibility that some valuable qualitative information could be obtained from observing the process of therapists and clients taking their questionnaires. Therefore, these questionnaires were always taken on linked computer systems. On these systems, the researcher had a display screen, keyboard, and mouse that were linked to the ones being used by the therapists and clients, so he could see what they were doing and help them when needed.

Therapists could take their questionnaires in their office on a portable computer system, or in the researcher's office on a fixed system. The portable system consisted of two notebook computers connected together, and running the program pcAnywhere. This program enables one computer to have remote simultaneous access to the other. The process of setting up this system in a therapist's office first involved finding suitable places for each computer. This was usually the therapist's desk for the therapist's computer, and on the researcher's lap while he was sitting in a chair for his computer. Then the computers had to be connected through their parallel ports with a DB25 cord. Each computer had to be plugged in to an electric outlet, and an auxiliary mouse plugged into the therapist's computer. (The auxiliary mouse was so therapists didn't have to use the touch pad on their computer, which pilot testing had shown was difficult for some of them). Once the computers were on and running, pcAnywhere was started and the computers connected through this software. Then the therapist questionnaire was started, the therapist instructed how to use it, and the therapist would take the questionnaire. When the questionnaire was finished, the computer system was turned off and taken apart. This entire process always took less than one hour, as intended.

The fixed system was in a room in the researcher's office set up with two adjacent computer desks with identical computer displays, keyboards, and mice, hooked into one computer. This computer had a display splitter, mouse splitter, and keyboard splitter, so that both computer stations had equal access to the programs running on the computer. Therapists who preferred to take their questionnaires in this office would sit at one computer station, and the researcher would sit at the other. Most therapists took the questionnaire in their offices,

but a few used the fixed system in the researcher's office.

All participant clients used the fixed system in the researcher's office.

PARTICIPANT THERAPISTS

All therapists to be included in the therapist database and thus available for matching were found through word-of-mouth, or networking, with other therapists. All therapists were first personally interviewed on the telephone by the researcher, and had the matching system and study described to them. They were offered full pay for any time participating in the study for which they were not paid by a client with whom they were matched. Approximately two-thirds of the therapists who took the therapist questionnaire accepted this offer, and were paid their normal session rate for the one session this took.

If a therapist agreed to be available for matching, the therapist took the therapist questionnaire, usually in the therapist's office using a notebook computer (see the section above describing the computer system). All therapists who took the therapist questionnaire were added to the therapist database for matching to clients. If a therapist was matched to a client, that therapist was usually removed from the pool of available therapists, so that clients would be matched to different therapists.

By the time participant clients were first recruited for this study, 25 therapists had completed their questionnaires and been added to the therapist database for matching.

The therapist Consent to Participate in Research, which was approved by the Saybrook Institutional Review Board, is attached as Appendix G.

PARTICIPANT CLIENTS

The six participant clients were found in several different ways. One method involved the researcher writing letters to various friends, describing the study, and asking if they knew anyone who would be interested in participating. One friend of the researcher immediately agreed to participate, and his girlfriend also agreed to participate. He had never seen a therapist before, and was curious what it would be like. His girlfriend had seen a therapist before, but wanted to have a local therapist available in case she needed one. Both of these

participants went for only the agreed upon three sessions. In one case, an employee of a friend who had received one of these letters saw the letter, and immediately called the researcher asking to participate. After he started his therapy sessions, this person also stated that his girlfriend wanted to participate. Both of these clients were participating for personal reasons, and as far as is known to the researcher, have continued with their therapists for at least 10 sessions. The fifth client was obtained when a friend of the researcher sent emails to her friends asking if anyone wanted to participate. One of the recipients of these emails immediately emailed the researcher and asked to participate in the study. The sixth client was obtained from a poster placed on a bulletin board in front of a market. This was the only participant client not found directly or indirectly through a friend of the researcher.

A participant client would take the client questionnaire in the researcher's office, with the researcher observing on one of the two computers, and giving advice and help when necessary. After completing the questionnaire, which usually took about one hour, the client was given a computer printout of a list of therapists with their match ratings, in order of how well they were matched to the client. The therapists' rates were discussed with the client, and the client selected one or two therapists whom they were interested in talking to. The client was then given contact information for these therapists.

The researcher called all therapists who might be contacted by participant clients to alert them. Participant clients then made contact with the therapists they were interested in, and made their own arrangements for session times and payments. The researcher suggested to all six clients that they might want to interview more than one therapist and then select the one they liked the best. Five clients called one or two therapists, made an appointment with one therapist, and continued with that therapist without trying a second one. One client took the researcher's advice, saw two therapists for one session each, and then selected the therapist she liked best.

The client Consent to Participate in Research, which was approved by the Saybrook Institutional Review Board, is attached as Appendix H.

CLIENT-THERAPIST MATCHES

There were six participant clients who were matched to five participant therapists. Usually clients were only shown a list of therapists who had not been previously matched to other participant clients. However, the researcher could see the list of all therapists and their match ratings. For the sixth client, there was one therapist who had already been matched to another client in the study who had a very high match rating. Because this sixth client seemed to have serious problems, it was deemed more important to find the best match for this client than to keep the study as pure as possible, so this highly rated therapist was added back into the client's list, and turned out to be the therapist selected by the client. Thus the study ended up with one therapist being matched to two different participant clients.

SESSION ASSESSMENTS

General Description

After the participant clients arranged for therapy sessions with their matched therapists, the clients and therapists were each given three sets of session assessments, along with large stamped enveloped addressed to the researcher. The client session assessments were created to test for correlations on the various matching criteria between client comfort and how well matched clients were expected to be. The therapist session assessments were created to test for correlations on the various matching criteria between therapists ratings of client comfort and the excellence of match with how well matched clients were expected to be. Both sets of session assessments were also to be used to test these correlations overall for the entire group of criteria.

The client and therapist session assessments were intended to be filled out separately by clients and therapists after each of the first three sessions. With 6 client-therapist pairs, and 3 sessions assessed, this would produce 18 client assessments and 18 therapist assessments, for 36 session assessments in all. Clients and therapists were instructed to fill out the assessments immediately after the sessions. There was a wide spectrum of how well this instruction was followed, with some participants following it exactly, and some waiting for almost a week before filling out the assessments. However, all 36 session assessments were completed and delivered to the researcher.

A sample client assessment, showing all possible questions, is included as Appendix I. The client assessment had 8 pages, with an instruction page at the beginning. There were a maximum of 49 areas of assessment. Usually, there were two questions for each area of assessment, one asking for a rating of the amount of an aspect of therapy, and the next asking for a rating of the client's comfort with this amount.

A sample therapist assessment, showing all possible questions, is included as Appendix J. The therapist assessment had 8 pages, with an instruction page at the beginning. There were a maximum of 49 areas of assessment. Usually, there were three questions for each area of assessment, one asking for a rating of the amount of an aspect of therapy, the second asking for a rating of the therapist's opinion of the client's comfort with this amount, and the third asking for a rating of the therapist's opinion of how well matched this amount was to the client's needs.

Selection of Questions

Questions were selected to enable an assessment of the matching criteria. Questions were intended to mirror questions in the therapist questionnaire. The intention was to assess the same therapist aspects that were used for matching. The questions that would apply to each matching criterion can be seen from the chapter on matching formulas, which describe the questionnaire questions used for matching on each criterion, and the chapter subsequent to this description which will describe the results of the assessments in the context of decisions of the efficacy of the various matching criteria.

If clients didn't meet the cutoff level for matching according to a matching recommendation, and thus were not matched according to that recommendation, then assessment questions relevant to that recommendation were automatically excluded from the session assessments for both the client and the therapist in that match. For example, a potential session assessment asks about use of behavioral techniques to help with sexual performance problems. If clients did not have sexual performance problems, these questions were omitted from the session assessments. In like manner, if clients did not express a preference for an area of therapist demographics, then questions asking about client comfort in that area were omitted from the assessments.

Format of Questions

All questions had one of two formats. Either they asked for something to be rated on a scale of 1 to 7, or they asked for something to be rated using arrows going in both directions. This latter format is named *2-way assessments*. 2-way assessments have been used throughout the session assessments, and had a choice of 7 different circles that could be filled in. Examples can be seen in Appendixes I and J.

Recording Question Answers

The answers from all session assessments were recorded in databases named RawData. The questions with scales of 1-7 were recorded directly as answered. The 2-way questions were recorded by assigning the value of -3 to the answer farthest to the left, and the value +3 to the answer farthest to the right. An answer exactly in the center, where the arrows go both ways, was given the value 0. For example, if the circle just to the left of the center was filled in, the value -1 would be recorded.

INTERVIEWS

All participant clients and therapists were interviewed by the researcher after their third therapy session, using the technique of focused interviewing (Yin, 1994), in which pre-written questions were asked, and participants' answers followed up when appropriate. Interviews were recorded on a small voice recorder. They were then transcribed by the researcher.

The schedules of interview questions for clients and therapists are included as Appendix K.

DATA ANALYSIS METHODS

Definitions Used in This Section

For clarity, the following terms are defined here. These terms all apply to the session assessments.

Amount = ratings by clients and therapists of the amount an area of therapy was used, usually on a scale of 1-7. For example, "How much structure did your session have?".

Comfort = ratings by clients and therapists of how comfortable clients were with the *amount* of an area of therapy. These questions usually followed questions about *amount*. For example, "How comfortable were you with the level of intimacy in your session?". Clients answered about their own comfort, and therapists answered with their opinions of how comfortable they thought their clients were.

Expectation = expectation of client comfort, produced by multiplying clients' scores on their matching criteria by the *amounts* of appropriate areas of therapy, as determined from answers to the session assessments.

Match = therapist's ratings of how well the *amount* of an area of therapy was matched to the client's needs. For example, in the area of intimacy, after therapists rated the amount of intimacy, they were asked to give a match rating for intimacy on a scale of 1-7, with 1 = "poorly matched to needs," and 7 = "well matched to needs."

Sources of Data

Both the session assessments, and the client and therapist questionnaires, produced interesting and useable quantitative data. The quantitative data from the questionnaires consisted of calculations of means and standard deviations on the individual questions in the questionnaires, and also on the combinations of questions used for matching recommendations. The quantitative data from the session assessments consisted of calculations of correlations between client comfort and expectation of client comfort, and calculations of means and standard deviations on the answers to these assessments.

The interviews were the primary source of qualitative data. However, since the researcher was present while all questionnaires were being taken, and interacted with the participants taking the questionnaires, observations by the researcher during these times also produced a valuable source of qualitative data, as will be discussed in the next chapter on the results of this study. This is considered a legitimate source of data for a case study, and is known as *direct observation* (Yin, 1994).

Successes and Problems in the Session Assessments

Difference in Understandability of Questions

As attempts were made to analyze the data from the session assessments, it was

noticed that some of the data were useful, but some of the data had inherent problems that made it not useful for analysis. Data was useful if it came from questions that were clearly understood by participants, and thus could be assumed to reflect their experiences. However, some questions turned out to be very confusing to participants, and were answered in ways that did not necessarily reflect their experiences.

Useful Data from Questions that were Understood

Most areas of questioning in the session assessments started with questions about the amounts of certain aspects of therapy that were present during the sessions. All the questions seemed to be well understood, and produced useful data. For example, a question like "How often did the therapist give direct support and reassurance," with a scale of 1 to 7, and the words "Never" on the left and "Very Often" on the right, seemed very clear to all participants. The 2-way amount questions also seemed very clear. For example, the question about who directed or controlled the session, with the therapist on the left and the client on the right, seemed very easy for participants to understand and answer.

The questions asking therapists to rate how well amounts were matched to clients needs also seems to have not caused much trouble. All these had a scale of 1-7, with "Poorly matched to needs" on the left, and "Well matched to needs" on the right. Therapists may have had to guess a lot to answer these questions, but there didn't seem to be any misunderstanding of exactly what was being asked.

The questions about client comfort that had scales of 1-7 also seemed to give participants no problems. All these had "Uncomfortable" on the left and "Comfortable" on the right. Thus the higher the number, the more comfort.

2-Way Comfort Questions that Did Not Produce Useful Data

Unfortunately, the 2-way questions about client comfort did not work well at all. An example of this type is the question about therapists' use of humor during the session. Clients were asked "How comfortable were you with your therapist's use of humor?" They were shown the usual series of arrows going in both directions, with the choice "I would have preferred my therapist to use humor LESS often" on the left, and the choice "I would have preferred my therapist to use humor MORE often on the right." (See Page 3 on the client

session assessment in Appendix I).

The major areas where these 2-way comfort questions were used were for the 7 possible ways of receiving help in therapy (*help-ways*), and for the four styles of empathy. In both of these areas, the help-ways or the empathy styles were described, and then participants asked to rate client comfort using this system, with "would have preferred less" on the left, and "would have preferred more" on the right. (See Pages 7-8 on the both the client and therapist session assessments in Appendixes I and J).

The intention for these 2-way questions was to not only assess client comfort, but also to get extra information by determining in which direction clients were uncomfortable. The exact center on this scale was intended to indicate maximum comfort, as this would show that neither more nor less of the particular amount was desired. That is, if the far left arrow had a score of -3, and the far right a score of +3, the center would have a rating of 0, which would indicate maximum comfort.

Unfortunately, there was a tendency for both participant clients and therapists to rate that clients would have preferred more of all help-ways and empathy styles, regardless of how much they rated that those help-ways and empathy styles were used. For example, therapist Sam answered on his session assessments that for every help-way, his client would have preferred more. As a specific example, he marked the amount of *specific actions to take as soon as possible* as 7 for Session 2, but then marked the comfort level as almost as far toward "would have preferred more" as possible (+2 out of a maximum of +3), thus indicating his client was uncomfortable because there wasn't enough of this help-way. In his interview, his explanation was that he had assumed if a little was good, more would be better. As another example, in her interview, I asked therapist Agatha why she had rated that her client would have preferred more of every help-way, regardless of how much the help-way was used. She answered that this "reflected my low self-esteem, more than reality," and that she felt "I could always do better in what I'm doing." Thus she also felt that more of these help-ways would have been better, regardless of how much she used them. Client Jane had similar problems answering these questions. For example, in Session 2, she rated the amount of the help-way *gaining insight into causes of problems* as a 6. However, she also rated her comfort as +2,

which is almost as far toward wanting more as possible. When questioned about this in her interview, her answer was that she sometimes felt the sessions were very short, and that if she could spend the whole day with her therapist "I could probably get cured." Therefore, she also felt that more was better.

The exact same problem occurred in ratings of empathy. That is, there was a strong tendency to mark that more was preferred, regardless of how high the amount was. For example, in his interview, therapist Sam stated that he also ranked all types of empathy as the client would have preferred more, because of the same "more is better" idea.

Therapist Wendy had the opposite problem with all the 2-way ratings of comfort. She stated that "I just went in the middle when I thought it was neutral." She was surprised when I told her that I had intended the middle to be the highest rating (not wanting more or less, so therefore perfect).

It is interesting that the pilot testers did not have problems with these questions. Obviously the pilot testing in this area was inadequate.

Other Problems in Session Assessments

The ratings of clients' comfort with therapist demographics were not effective. Obviously these questions did not have ratings of *amounts*, as the amounts were fixed by the reality of the therapist demographics. On demographics that were obvious, such as sex, age, and race, clients were universally very comfortable. On demographics that could not be known without therapist self-disclosure, such as marital status, parental status, and sexual orientation, clients answered either with 6's and 7's that they were very comfortable, or with 4's. When questioned about the 4's in the interviews, clients indicated that they used this rating to indicate that they didn't know, because the therapists never disclosed this information. For example, client Mel stated that he marked his comfort with his therapist's economic or social background as 4 because "I don't really know what that is" because the therapist never told him. This made analysis of this data impossible, as a 4 did not indicate any type of discomfort. No client ever rated any demographic aspect as less than neutral. That is, no client was unhappy with any demographic aspect of any therapist.

There were four session assessment questions in particular that were also not useful.

The first was intended to ask about therapists focusing on clients finding friends less supportive of drug or alcohol use. Because there were no clients in the study who had drug or alcohol problems, this question never appeared on any session assessments. The second question was in relation to paradoxical interventions. No therapist every used this technique during any of the sessions, so ratings of client comfort were not applicable. The third and fourth questions that were not useful asked if therapists had been comfortable with client's anger and depression. Since there were no corresponding questions asking about client comfort, no good use could be found for these questions.

Ratings of amount of focus on symptoms was sometimes confusing to clients, and possibly to therapists. Therapists might think they were not focusing on symptoms, but the clients might be continually thinking about how they could use information from the sessions in practical ways. Thus the therapists might be thinking depth, while the clients were thinking symptoms. For example, in his Session 2, client Ed marked the session as far toward "straightforward, practical, educational, and supportive" as possible, while his therapist marked the session slightly toward "provocative, imaginative, and involving novel thinking and experiences." The reason Ed marked it this way was that he interpreted the fact that he was able to use information from the session in a helpful way as a focus on symptoms.

Statistical Analysis

Means and Standard Deviations for Therapist and Client Questionnaires

For both client and therapists questionnaires, means and standard deviations were calculated for the answers to each individual question. In addition, means and standard deviations were calculated for the combinations of questions used for matching recommendations. An example of the subject of this second type of calculation would be *treatment complexity*, as determined from the combination of three individual questions on the therapist questionnaire. An example for clients would be any of the NEO Five Factor domains, each of which was calculated by a combination of questions from the NEO Five Factor Inventory.

By the end of the study, 27 therapists had completed the therapist questionnaire. In

addition, 4 other therapists had completed this questionnaire as part of the pilot study. There were thus 31 therapist answers that were included in these calculations. There were 6 participant clients who completed their questionnaires. In addition, there were 5 pilot testers who completed the client questionnaire, plus one additional friend of the researcher's, who completed the questionnaire, but did not participate in the study. Thus there were 12 client answers which were included in these calculations.

Means and Standard Deviations of Session Assessments

Means and standard deviations were calculated for all individual questions on the session assessments for both clients and therapists. There were 6 matches. Each match generated 3 client session assessments, and 3 therapist session assessments. Thus there were 18 client session assessments and 18 therapists session assessments from which these calculations were made.

Preparation of Session Assessment Data for Correlation Analysis

The first decision was to only calculate correlations for questions that didn't have inherent problems. Therefore, for the reasons described above, all questions about *help-ways*, empathy styles, and demographics were removed. Also, all information connected to the other four specific questions that were not useful (alcohol or drug use, paradoxical interventions, and therapist comfort with client anger or depression) were removed.

The remaining questions, which will be called *standard questions*, were the only question used for calculations of correlations. It was determined that the raw values of ratings of client *comfort* and *match* for the standard questions should be adjusted to compensate for differences in clients' and therapists' rating styles. That is, different clients and therapists may have tended to rate comfort and match low or high, depending on their personal idiosyncracies. Because the relative comfort and excellence of match in the different areas was what was important, all ratings of *comfort* and *match* were standardized by converting them into Z scores. This was done by calculating the means and standard deviations for each of these types of ratings for each therapist and client, then subtracting each participant's rating from the appropriate mean, and then dividing by the appropriate standard deviation.

Selection of Correlations

The original intention in this study was to calculate correlations of client ratings of their comfort against the expectations of excellence of match, and to calculate therapists ratings of client comfort and client excellence of match against expectations of excellence of match. Excellence of match was defined in terms of client comfort. Thus expectation of excellence of match was actually expectation of client comfort. This will be called *expectation-of-comfort*. Preliminary calculations of correlations for both of these areas showed correlations of almost exactly $r = 0$. It was clear that this multiple-case study would not produce one or more statistics that could be used to prove that the matching system was a success. Any important information from the study would have to come from a more in-depth analysis of the individual matching criteria.

The question then became one of exactly which client and therapist ratings to use for calculations of correlations, and in what way. For the possible correlation calculations in this study, there are two sides: client comfort or excellence of match, and *expectation-of-comfort*. The decision on how each of these was selected will be discussed in the next two paragraphs.

For any one session assessment question, there were in general three ratings of client comfort or match excellence: a rating of client comfort by clients, and ratings of client comfort and excellence of match by therapists. From the interviews, it became clear that therapists were very unsure about client comfort. They didn't discuss clients' comfort with the clients, and they didn't know the clients well enough to do more than guess at their comfort levels. The situation was even worse for therapists' ratings of excellence of match. They could at most guess at this, as they did not have an opportunity to discuss this with the clients. Therefore, the decision was made that by far the most useful measure of client comfort was the assessment by the clients themselves. For this reason, client comfort as assessed by the clients was the first part of the measurements used for calculations of correlations. This will be called *comfort* from now on.

Expectation-of-comfort could have been calculated in two different manners. The first would have used the match ratings from the original matches. As was described in Chapter 3, these were calculated by multiplying the client scores on each criterion, as obtained from the

client questionnaires, by the appropriate scores for therapists according to the specific matching recommendations, as determined from the therapist questionnaires. As a simple example, one recommendation for clients in later *stages of change* was more emphasis on action by therapists. As described in Chapter 3, clients were given *stage of change* scores with possible ranges of -6 to +6. Therapists were assessed on their *action orientation* through their answers to several questions in their questionnaires, producing scores with possible ranges of -15 to +15. These two scores were then multiplied, to produce match ratings. The therapists' scores were obviously determined from self-assessments by therapists, which may or may not have been accurate reflections of reality. The session assessments actually produced a more accurate measure of what therapist and therapy qualities were, which was the assessments of *amounts* by clients and therapists. This suggested a more accurate method of calculating expectation of match. This method was to multiply the client scores on the matching criteria by assessments of amounts of areas relevant to those criteria, as actually observed by clients and therapists. Using the same example of stage of change, for example, to determine one expectation of excellence of match on the criterion of *stage of change*, a client's *stage of change* would be multiplied by the amount a therapist focused on alleviation of symptoms as opposed to on causes of problems, as assessed in the sessions. This could then be correlated against the clients' ratings of comfort on this same sessions assessment question. This was the method selected for calculating expectation of clients comfort.

Once it was decided to use session assessments of *amount* to calculate *expectation-of-comfort*, the next question was which assessment of *amount* to use, the clients' or the therapists'. Sometimes amounts differed greatly between therapists' and clients' assessments, often because they were focusing on different aspects of the sessions. For example, as described several pages ago, for his second session, client Ed marked the session as far toward "straightforward, practical, educational, and supportive" as possible because he thought he could use the information from the session in a practical way. Ed's therapist marked the session slightly toward "provocative, imaginative, and involving novel thinking and experiences" because she thought she was using practical aspects of his life to make in depth observations about his life, and thought she was being provocative and imaginative, and

getting him to look at things in a different way. As another example from the same client-therapist pair, in his second session, Ed rated the complexity of the session as the least complex possible, while his therapist rated it as the most complex possible. In their interviews, both stood by their ratings. Ed thought the session was simple, not complex. His therapist thought the session was complex because it covered a lot of subjects and was "multi-tiered."

There is a good argument for using either the client or the therapists *amount* ratings. On the one hand, clients' comfort is the other side of the correlation, and their comfort would be relevant to the amount of something they perceive to be there. That is, if they don't notice it, then it may not be relevant to their comfort. On the other hand, the therapists know more about what they are doing, and therefore might be more expert at assessing the amounts of what they provided. Because these arguments were deemed equivalent, it was decided to use an average of the client and therapist amount ratings for each calculation of *expectation-of-comfort*.

Calculation of Correlations

Correlations were then calculated between *expectation-of-comfort* for each *standard question* (useable question) in the session assessments, and clients ratings of comfort on these same questions or areas of therapy. These correlations are shown in Appendix L.

Correlations were calculated using two different systems. The first method was a Pearson's product-moment correlation coefficient (Howell, 1997). This will be known as *pearson's correlation*. Pearson's correlation was calculated according to the formula

$r = cov_{xy} / sd_x\, sd_y$, where $cov_{xy} = \sum(x - \overline{x})(y - \overline{y}) / (n - 1)$.

The second correlation calculation was Spearman's correlation coefficient for ranked data (Howell, 1997, p. 289). This will be known as *spearman's correlation*. Although *comfort* and *expectation of comfort* were not naturally ranked, using *spearman's correlation* was suggested by a statistics consultant as being less dependent on the assumption of a normal distribution. The formula for s*pearman's correlation* is the same as for *pearson's correlation*, except that the data correlated are the ranks of *comfort* and *expectation-of-comfort*, rather than numerical values.

Both of these correlations were calculated for all *standard questions* in the session assessments. The calculations were made using the formulas above, and computer programs written by the researcher, incorporating these formulas. The rankings needed for *spearman's correlation* were also accomplished by computer programs written by the researcher.

CHAPTER 5: RESULTS

OVERVIEW

The intention before this study began was to show positive and significant correlations between the expectation of how good the matches would be, based on the match ratings for the matching criteria, and the ratings of comfort and excellence of match by the clients and therapists from their session assessments. As shown below, this did not happen. Fortunately, this study was primarily envisioned as exploratory. The exploratory part of the study did work well. Most of this chapter is devoted to exploring all the matching criteria in depth, with the goal of determining how the matching system could be improved in the future.

QUANTITATIVE RESULTS FOR STUDY AS A WHOLE

The calculation of correlation for all match criteria for all match pairs was done with *Pearson's correlation* only. The correlation between *expectation-of-comfort* and *comfort* was $r = 0.04$. As will be seen later, some criteria showed positive correlations, some showed negative correlations, and some showed essentially no correlations. The combination of these correlations added up to approximately zero. If the negative correlations indicate criteria that actually had negative association with comfort, this could have balanced out the positive associations of the other matching criteria. A more likely explanation is that all the clients were matched to therapists with whom they had very high ratings, so almost all the matching criteria were very positive. In addition, all the comfort ratings were very high. Therefore, there were very few possibilities for negative criteria to correlate with negative comfort ratings. With mostly high criteria and all high comfort ratings, there wasn't enough range in criteria and comfort to produce many high statistical correlations.

The session assessment overall statistics indicate the problem of invariant high ratings. For all ratings of client comfort by clients, for all matches, on the scale of 1 to 7, the mean was 5.71, with sd = 1.19. This means that almost all the ratings were between 4 and 7. That is, there were almost no ratings of discomfort (comfort < 4) by any client on any question. The ratings of comfort by clients were so high that there wasn't enough variation in

the ratings to determine accurate overall correlations. This is especially clear when you consider that clients used ratings of “4" to mean they were not sure. Because of these uniformly high ratings of comfort, it was necessary to look instead for more subtle effects than a high overall correlation.

As a matter of interest, for all sessions for all matches, therapist ratings of client comfort had a mean of 5.37, with a standard deviation of 1.04, while therapist ratings of how well matched their techniques were to client needs had a mean of 5.52, with a standard deviation of 0.83. Again these are uniformly extremely high ratings.

FOCUS ON IMPROVEMENT OF MATCHING PROGRAM

The focus of the rest of this chapter is the improvement of the matching program. This is based on the concept that underlies this entire project, that this is the first very tentative step in developing a system of matching clients to therapists. It has been explicitly assumed and stated at every opportunity that this first step will be very primitive. The hope is that this study of the matching program will produce information that will enable the program to be improved, and then tried again. That is, an essential part of the analysis of this study is that the matching program will be improved, tried again, and studied again as part of that retrying. The information that follows is an analysis of how this might be accomplished, through a combination of deleting matching recommendations, retaining matching recommendations, changing matching recommendations, and even adding some new matching recommendations. In addition, the analysis will discuss possible improvements to the session assessments, so that when the new improved program is retried, there will be new improved session assessments to assess its components.

The matching program consists of approximately 34 different general matching criteria, each one of which contains one or more matching recommendations or suggestions. There are approximately 22 criteria based on client characteristics, and approximately 12 criteria based on client preferences. As described in the Chapter 2 on selection of these criteria, all criteria were selected from the psychotherapy research literature that had any convincing evidence that they might be useful for matching clients to therapists. This resulted

is what might be called a “kitchen sink” matching program. That is, it contains everything but the kitchen sink. (The kitchen sink itself had very poor research results, so it wasn’t included.) It would have been remarkable if every one of these matching criteria worked. It wasn’t expected that they would all work. As can be seen below, many of them did not work.

In the analysis of each criterion below, several decisions will be discussed. The primary decision level is whether to retain or delete any matching recommendations in the criterion, or possibly to delete the entire criterion. If a matching recommendation isn’t deleted, then changes needed in assessments related to the recommendation will be discussed, including changes in assessments of clients and therapists prior to matching, changes in matching formulas, and changes in the session assessments used to study the recommendation.

METHODS OF ANALYSIS OF MATCHING CRITERIA

In the sections below, each matching criterion will be analyzed both quantitatively and qualitatively. The primary quantitative analysis will be the correlation from the session assessments of *expectation-of-comfort* and *comfort*. Correlations will be shown with *Pearson’s correlation* first, and then *Spearman’s correlation* in parentheses immediately after it. Other methods of quantitative analysis, both of the session assessments and of the questionnaires, are calculations of means and standard deviations. Standard deviations will be shown immediately after means, sometimes in parentheses, in the form “sd = x.xx.”

The two primary methods of qualitative analysis are the interviews with clients and therapists, and observations by the researcher of clients and therapists while they were filling out their questionnaires. In addition, a subjective opinion is expressed on the recommendation strength of each matching criterion.

FORMAT OF DISCUSSIONS BELOW

In the discussions below, many questions from the questionnaires and session assessments will be listed. The questionnaire questions were previously listed in Chapter 3,

where they were shown and discussed in detail. This questions are also shown completely in Appendixes A and B. Therefore, only enough information about the questions will be repeated below to make them understandable. It should be assumed that all questions have answers that were translated into scales of 1-7, unless stated otherwise. It should also be assumed that all questions rate areas being assessed in obvious directions, unless stated otherwise. For example, the question "How directive are you with clients during therapy?" should be assumed to have answers translated into the normal 1-7 scale, with higher number representing more directiveness, unless explicitly stated otherwise. This same assumption for scale, and direction of higher numbers, should be applied to all listings of questions from the session assessments. The session assessments are shown in full in Appendixes I and J.

MATCHING BY CLIENT CHARACTERISTICS

Diagnosis x Treatment in General

Matching Recommendations

For referral of clients with anxiety or sexual problems, the therapists should be aware of the possible utility of cognitive and behavioral techniques, especially exposure methods, and have some method of implementing them, either by themselves or in collaboration with other therapists.

Recommendation Strength: Strong

Even though it was concluded that all other *empirically supported treatments* (EST's) would not be included in this matching program, these treatments for these two problem areas have been so well supported by research that it was difficult to not include them.

Client Anxiety and Therapist Use of Exposure or Desensitization

Matching

For this criterion, clients with anxiety were matched to therapists who used desensitization or exposure treatments for clients with anxiety disorders, or collaborated with other therapists who used these treatments.

Therapist Ratings from Questionnaires

To assess therapists for these qualities, they were asked two questions: "For your clients with anxiety disorders such as agoraphobia, phobias, or OCD:"

1) With how many of these clients do you use systematic desensitization or exposure treatments? (Mean = 3.19, sd = 1.30, range = 1-5, 1=*All clients*, 5=*No clients*).

2) How often do you collaborate with other therapists who specialize in systematic desensitization or exposure treatments by referring your clients with these disorders to them? (Mean = 3.55, sd = 1.15, range = 1-5, 1 = *Usually*, 5 = *Never*).

The mean and standard deviation on Question 1 indicate that almost all therapists answered in the middle range, between "Most clients" and "Few clients". This is discriminatory enough to be able to differentiate the therapists. On Question 2, there was a very strong cluster of answers around 4, which was "Seldom." It appears that therapists do not tend to collaborate in respect to these treatments for anxiety disorders.

Client Ratings from Questionnaires

As described in Chapter 3, clients were assessed for this matching recommendation by using their Anxiety rating on the Brief Symptom Inventory, and then setting all values under 0 at 0. This produced a possible final score range of 0 to +5.

Interviews and Other Qualitative Information

Qualitatively, these is some indication this matching system has enough promise to be kept in the system. Jane, who had an *anxiety* rating of +4, and who entered therapy desperate to be helped for panic attacks, was matched to a cognitive-behavioral therapist who uses exposure or desensitization with "all clients." Jane was extremely happy with this match. In her interview she expressed complete satisfaction with her therapist, and said she could not think of anything that was uncomfortable or unhelpful in her sessions. She thought everything in the sessions was helpful. She said she sometimes felt if she could spend the entire day with her therapist, it could solve all her problems. Her therapist was equally happy with her as a client, and described her as "almost like a poster child" for his therapy.

Session Assessments

The rating of comfort for use of exposure treatments was a 2-way assessment, which

gave choices of "would have preferred less" versus "would have preferred more." As explained in Chapter 4, this type of assessment did not produce statistically useful information.

There were 3 clients who had Anxiety greater than 0, and were matched in part based on this criterion: Jane=4, Linda=3, and Ann=1. Ann's rating was too low to get any useful information. In addition, she appeared to have some generalized anxiety, but no specific indication of any diagnosis which would indicate the use of exposure or desensitization. Linda had a fairly high anxiety rating of 3, but was matched (for other reasons) to a therapist who was right in the middle of her answers to the relevant questionnaire questions (she uses exposure or desensitization with "some clients"), so this matched pair had a matching recommendation on this criterion of 0 (neither positive nor negative). According to the session assessments of both Linda and her therapist, some sort of exposure was tried in Sessions 2 and 3. Linda believed the amounts were 6 and 7 (1-7 scale) for these sessions, and her therapist believed the amounts were 4 for both sessions. Linda's rating for these 2 sessions was +2, which is far toward the direction of "wanted more." The ratings for amount used in Session 1 were 4 for Linda and 1 for her therapist. Linda's comfort rating was 0 (just the right amount). Since Linda did not "prefer more" in the first session, where there was agreement the amount of exposure was much lower, and she did prefer more when exposure was used, it is reasonable to believe that this indicates Linda liked exposure treatments being used. That is, when they were used, she wanted more of them.

As explained above in the section on interviews, Jane did have a diagnosis that exactly fit this matching criterion. Both she and her therapist agreed that the amount of exposure in Session 1 was low (3 for both Jane and her therapist) (scale = 1-7). She and her therapist agreed the ratings were much higher on Sessions 2 and 3: 6 for Jane, 5 for her therapist. Jane's comfort level for all 3 sessions was 0 (just the right amount). One would not expect exposure to be used much in a first session. The fact that both Jane and her therapist rated that exposure was used a lot in Sessions 2 and 3, and Jane felt this was exactly the right amount, is some indication that use of exposure was a good match for Jane.

Conclusion

The conclusion is that this matching criterion should be retained, but both the client and therapist matching questionnaires should be improved. The client questionnaire should include some method of determining if a client had a specific type of anxiety for which exposure or desensitization is recommended: agoraphobia, panic attacks, or obsessive-compulsive disorder. A few questions could be added to determine this. The therapist questionnaire also needs some improvement in this area. As described above, the question about collaborating with other therapists wasn't very useful. The question asking with how many clients these treatments are used produced useful information. Perhaps the scale on this question could be expanded to give 7 choices instead of 5, to lessen the effect of the tendency to answer away from extremes. Possibly another question could be added asking about the relative importance of these techniques as part of the therapy for clients with these diagnoses.

Behavioral Techniques for Client Sexual Performance Problems

Matching

For this criterion, clients with sexual performance problems were matched to therapists who used behavioral techniques for these problems, or collaborated with other therapists who used these techniques.

Therapist Ratings from Questionnaires

To assess therapists for these qualities, they were asked two questions: "For your clients with sexual performance problems:"

1) With how many of these clients do you use behavioral treatments? (Mean = 2.94, sd = 1.36, range = 1-5, 1=*All clients*, 5=*No clients*).

2) How often do you collaborate with other therapists who specialize in behavioral treatments by referring your clients with these disorders to them? (Mean = 3.13, sd = 1.18, range = 1-5, 1 = *Usually*, 5 = *Never*).

The means close to the center on both these questions, together with standard deviations fairly close to 1, indicate that almost all therapists answered in the middle ranges, between "Most clients" and "Few clients" for Question 1, and between "Often" and

"Seldom." on Question 2. It seems that these questions do differentiate therapists to some degree, although the range is small. This could be from the effect of therapists being reluctant to answer questions at the extreme ends. Because there were only 5 choices, the answers were almost all 2, 3, or 4.

Client Ratings from Questionnaires

Clients were assessed by asking if a sexual problem was one of the reasons they wanted to see a therapist, and if so, how important this problem was compared to their other problems. Only one of the participant clients had a sexual problem, and on a scale of 1-5 (1 = *very unimportant*, 5 = *most important*), her importance rating was 2 (*relatively unimportant*). Thus there was no way to test the usefulness of this matching criterion in this study, because there were no clients with serious sexual performance problems.

Session Assessments

Only one client indicated any sexual problems. Therefore the question about therapists suggesting specific techniques to try for these problems was only included for one pair of session assessments. There was no clear pattern in the answers to this question for this client-therapist pair that shed light on the utility of this match.

Conclusion

It was concluded that this matching recommendation should be retained until there are several clients with these problems who use this matching system, so that it can be tested. Because the therapist questions produced a useful range of answers, these questions should be retained without any changes, except for possibly expanding the scale to give 7 choices instead of 5, to lessen the effect of the tendency to answer away from extremes.

Stage of Change

Matching Recommendations

The more action oriented the therapists, the more they should be matched with clients in later stages of change. The more therapists tend to use experiential or exploratory techniques, the more they should be matched with clients in earlier stages of change. The more the therapists concentrate on alleviating premature termination, the more they should be

matched with clients in the precontemplation stage of change.

Recommendation Strength: Strong

These matching recommendations in this area are based on over 20 years of research on Stages of Change by Prochaska and associates (Prochaska, 2000; Prochaska & DiClemente, 1992; Prochaska & Norcross, 2001). Many of the general ideas are supported by a similar model by Stiles and associates (Stiles et al.,1990; Stiles, 2001), which examines therapeutic impacts based on stages of assimilation of problematic experiences by clients. As usual, suggestions for therapeutic techniques had to be translated into therapists' usual emphasis.

Client Ratings from Questionnaires

Clients were assessed by asking several questions about their awareness of what their problems were, their knowledge of what changes they needed to make, and the status of their making changes. These questions are listed in Chapter 3. The mean answer for all clients (including pilot testers), on the scale of +-6 (higher number = later stage of change), was 1.42 (sd = 2.78). The ratings for the six participant clients were, from high to low: 3, 3, 1, 0, -1, and -1. The relatively high ratings are probably the result of the situation that clients would not have wanted to participate in a therapist matching program unless they had some desire to make changes. This is confirmed by the fact that every client answered the question "Do you think you need to change to solve your problems?" with "Yes."

Therapist Ratings from Questionnaires: Action versus Experiential/Exploratory

Therapist action orientation was assessed through three questions:

1) The help-way "Develop new skills or learn new ways to behave in the outside world"
2) The help-way "Get immediate help to take specific actions as soon as possible to make [clients'] symptoms better"
3) How much does your therapy focus on alleviation of symptoms, vs. on depth (underlying causes of problems)?

Combining these questions into an overall scale of -15 (least) to +15 (most), for all therapists, the mean for Action Emphasis, was -0.06, with a standard deviation of 6.96. This indicates that this was a scale that produced useable results by differentiating among the therapists.

Therapist emphasis on experiential or exploratory techniques was evaluated through similar questions:

1) The help-way "Gain insight into, or understanding of, the causes of [clients'] problems."
2) The help-way "Have an opportunity to examine [clients'] lives in a growth producing climate."
3) The help-way "Have an opportunity for deep experiencing and increased awareness of feelings and sensations."
4) How much does your therapy focus on alleviation of symptoms, vs. on depth (underlying causes of problems)?

This assessment should give somewhat opposite, but not exactly opposite, ratings to action orientation. This is confirmed by the fact that the mean for all therapists, combining these questions into an overall scale of -18 to +18, was 4.55 (sd = 8.05).

For the five therapists in the study, the action ratings (and experiential/exploratory ratings) were -12 (+18), -8 (+12), -7 (+16), 1 (+8) and 15 (-15). Thus there is an inverse correspondence between the two dimensions, as there should be. In addition, it seems that 4 out of the 5 of the participant therapists were oriented toward exploration and experiential techniques, rather than action.

Therapist Ratings from Questionnaires: Alleviating Premature Termination

As discussed in Chapter 3, there is no obvious or standard way to differentiate therapists on the quality of usual concentration on alleviating premature termination. The best that could be done were the following questions:

1) The talk-subject "Providing direct reassurance and/or support to clients." (Mean = 2.35, sd = 0.80).
2) The help-way "[clients] develop more hope that they can solve their problems." (Order mean = 4.39, sd = 1.54; how-often mean = 1.68, sd = 0.87)

The mean and standard deviation on Question 1 shows it did work well to differentiate therapists. Although the order mean of 4.39 for Question 2 was near the center (order scale = 1-7), the standard deviation was the smallest among the 7 help-ways. The how-often mean of 1.68 for Question 2 was the highest of the 7 help-ways (closest to 1 = *Always*). The standard deviation of 0.87 was the smallest of the 7 help-ways. Therefore, there wasn't as much differentiation among therapists on this question as might have been hoped.

Interviews and Other Qualitative Information

The interviews and other qualitative information indicated that the client questionnaire needs some improvement. It seemed clear that client Jane, with a stage of change of 3, was as ready for change as it is possible to be. She had panic attacks and was desperate for immediate help. She wanted to make immediate changes as soon as possible. She was matched with a cognitive-behavioral therapist, who gave her immediate suggestions for actions to make changes. The interviews indicate that she immediately made use of his suggestions. Thus all indications are that she was at an extremely high level of stage of change, but only had a 3 on the scale of +- 6. Assessments of clients' stage of change should be improved to have clients this ready to change come out higher on this scale.

The interviews confirmed that the therapist characterizations of action orientation versus emphasis on experiential and exploratory techniques appear to be somewhat opposite. For example, therapist Carla described herself in her interview as oriented toward "wanting to explore deeper" and not "problem oriented." At the other extreme, therapist Sam described himself in his interview as a cognitive-behavioral therapist (obviously very oriented toward actions), and described a very specific action-oriented technique he developed with his client to help her stop her panic attacks.

One of the two clients with the highest stage of change, Jane (score = +3), was matched with the therapist with the highest action rating, +15. From the interviews, this seems to have been the most successful match, with Jane stating that she could not think of a single thing she did not like about her therapist. The other client with the highest stage of change, Linda (score = +3), was matched with a therapist with an action orientation score of -7 and an experiential / exploratory score of +16. This was the least satisfied client. She stated in a pre-interview conversation that she thought nobody could help her, and did not think she would stay in therapy. Thus there is some qualitative information that the matching recommendations in this section have some validity.

Linda was the one client who was in therapy because of need who was considering terminating prematurely. Her termination was definitely related to lack of hope, but this lack of hope was because of her perceived lack of progress, not because the therapist wasn't

emphasizing hope, support, or reassurance in general. Perhaps coincidentally, her therapist had the highest rating on the quality of *concentration on alleviating premature termination* among all the participant therapists, 6 on the scale of -9.5 to +9.5.

Session Assessments

Because of the problem with statistically analyzing the help-ways, the only session assessment question that was useful in relation to action orientation or emphasis on experiential or exploratory techniques was:

1) Which did the therapist focus on: making your symptoms better, or examining the underlying causes of your problems?" r = 0.38 (0.31).

For emphasis on alleviating premature termination, the only useful question was:

2) How often did the therapist give direct support and reassurance. r = 0.10 (0.31). This was the closest question available for determining if therapists were giving specific attention to alleviating premature termination.

Conclusions

The conclusion for matching by client stage of change with therapist emphasis on action or on experiential or exploratory techniques is that this criterion seems to have some value, and is worth keeping without any major change. However, the client questionnaire has to be improved. This could be done by expanding the questions about clients knowing what changes they needed to make, and their exact stage of making changes, to get more discriminatory information. If there is enough room in the client questionnaire after other criteria are deleted, it might be possible to include the entire 32 item Stages of Change Scale (Brogan, Prochaska, & Prochaska, 1999).

The conclusion for matching according to therapists' concentration on alleviating premature termination should be deleted, but continue to be tested. The primary reason is that there is no clear way to differentiate therapists by how much emphasis they put on alleviating premature termination. The therapist questions that were used made this assessment in an extremely indirect way, if at all. There is little if any face validity in the connection between giving direct support and reassurance and alleviating premature termination. The question about instilling hope in clients had a relatively high mean and low

standard deviation, indicating it wasn't much use in differentiating among therapists. It may be that hope is not something that occurs through the therapist explicitly trying to instill hope, but instead occurs through all other aspects of the therapeutic process (the therapeutic alliance, client progress in solving problems, excellence of match between client and therapist, etc.). These problems in assessment do not mean that some therapists are not better than others at alleviating premature termination. They merely mean that no method of assessing this quality is readily available. Because of the conclusion that client stage of change should continue to be assessed for matching by therapist action orientation, there will be enough information in the next versions of this program to continue testing the utility of this criterion, if there is some measure that corresponds to therapists concentrating on alleviating premature termination. Therefore, an attempt can be made to continue to try to test this recommendation, even if clients are not matched according to it.

Prescriptive Psychotherapy

Matching

The matching recommendations from Prescriptive Psychotherapy are related to specific client characteristics, as defined withing this system. These client characteristics are:

* Resistance
* Coping Style
* Level of Distress and Impairment
* Problem Complexity and Social Support

Each of these client characteristics is discussed in detail in sections below.

Recommendation Strength: Strong

These matching recommendations are based on research by Larry Beutler and his associates over 20 years (Beutler, Arizmendi, Crago, Shanfield, & Hagaman, 1983; Beutler, Rocco, Moleiro, & Talebi, 2001). This research has been combined into a formal system of adapting therapy to patient characteristics, called by the various names of Systematic Treatment Selection (Beutler & Clarkin, 1990), Systematic Eclectic Psychotherapy (Beutler & Consoli, 1992) and Prescriptive Psychotherapy (Beutler & Harwood, 2000).

Resistance (Prescriptive Psychotherapy)

Matching Recommendations

Therapy directiveness should be inversely related to client resistance. The more resistant the client, the less therapist control, structure and directiveness there should be. Paradoxical interventions are recommended for clients with high resistance.

Therapist Ratings from Questionnaires

Therapist control, structure, and directiveness was assessed with the following questions, shown with their statistics for all therapists:

1) How much direction or control do you usually exert over what your clients discuss during therapy? (Mean = 3.19, sd = 1.38)

2) How directive are you with clients during therapy? (Mean = 4.30, sd = 1.38)

3) To what degree is your usual method of therapy structured? (Mean = 3.26, sd = 1.57)

4) To what extent is your therapy under your control, vs. collaborative with your clients? (Mean = 5.65, sd = 1.31, higher numbers = more collaborative).

5) In general, how confrontational is your therapy? (Mean = 4.77, sd = 1.43)

6) To how many of your clients do you assign homework? (Mean = 4.23, sd = 1.94, higher numbers = homework to more clients).

7) When you assign homework to a client, how often do you do this? (Mean = 3.81, sd = 1.96, higher numbers = homework assigned more often).

8) When you assign homework, to what degree is this homework self-directed by your clients? (Mean = 3.84, sd = 1.77, lower numbers = more self-direction).

9) How often do you give specific advice to clients? (Mean = 3.48, sd = 1.81)

Combining all of these questions produced a rating for therapist control plus structure plus directiveness. On a scale of -48 (least) to +48 (most), the mean was -5.90 with sd = 15.07. This is a fairly small standard deviation for such a large scale. Perhaps this is an indication too many dimensions (control, structure, and directiveness) were combined into one rating. In the future, separating these components might give more useful results. As can be seen from the statistics on the individual questions, some produced more differentiation among therapists than others. The least useful questions were Question 1 and

Question 2, which specifically asked about amount of direction. Another problem is that the questions about amount of homework and advice are indirectly related at best to the therapist qualities being assessed.

For future versions of this program, it would be desirable to have questions about direction and control that were more numerous and more fine-tuned.

Therapists' use of paradoxical interventions was assessed through one question: 1) How comfortable are you using the technique of Paradoxical Interventions? (Mean = 3.16, sd = 1.90, 1= never use, 7 = use whenever might be effective). Every therapist seemed to know what this technique was. The mean is rather low, but the standard deviation is fairly high, indicating this question seems to have effectively differentiated among therapists.

Client Ratings from Questionnaires

As described in Chapter 3, client resistance was measure on a scale with a range of 0-20, where any value over 0 indicated some resistance. For the 6 participant clients, the scores for resistance were (low to high) 0, 0, 0, 1, 2, and 5. In other words, only one client had high enough Resistance to potentially produce any meaningful results, and even her resistance wasn't all that high (5 on a scale of 0-20). These results imply that a better or more productive measure of resistance may be needed. On the other hand, perhaps none of the participant clients were very resistant.

Interviews and Other Qualitative Information

There was no indication from the interviews or from original meetings with clients (when they took their questionnaires) that any of them were high in resistance. All of them seemed eager to be in therapy, and to work with their therapists. In the situation of having clients come to someone with a therapist matching system because they were seeking therapists, it would be very unusual to have a resistant client. The only client with resistance over two was Linda, with a resistance of 5. She did seem subjectively to have higher resistance than the other clients. She would not come in to the researcher's office for her interview, but instead insisted on doing this interview by telephone. She was matched with a therapist with a rating of control, structure, and directiveness of -20, the lowest of the 5 therapists in the study. This is the one match where the client, although saying she liked her

therapist, talked about quitting because of lack of hope. However, she had no complaints about her therapist pushing her too hard. She did agree to several more sessions after her third session, so perhaps her therapist pushed her exactly the right amount.

In the session assessments, the question about homework did not give useful results, as participant clients were very confused as to what actually constituted homework. For example, Ed consistently rated the amount of homework as fairly high, although his therapist Carla rated that there was almost no homework at all. Ed thought there was a lot of homework because "we talked about the problems I was having and what to do about them" and then he did try to make use of this information. Carla said she considers something homework when she suggests a specific action for a client to try. She said the problem might have been because "what I'll do frequently is say 'You might want to think about this,' and I'm sure that sounds like homework" to some clients.

In the session assessments, the question about Structure also created problems. Clients were especially unsure what that meant. For example, in her interview, client Rose thought one of her sessions had a structure rating of 5, but her therapist Agatha had rated it as 2. Rose was asked about this discrepancy. She did not seem sure what was meant by *structure*. After an attempt was made to explain this concept to her, she decided that her session definitely did not have much structure, and changed her rating to 3. In Agatha's interview, her answer was that "when I'm structuring it, it doesn't feel like a lot of structure" to her, but it might feel like a lot of structure to the client. Agatha also stated "if she were structuring it, I'd feel constrained. But I'm in control of it, so she probably felt a little constrained."

The concept of what constitutes a "structured" therapy session is not very clear. Is this a therapy session that follows a very specific predetermined plan? Is it a session that stays on one subject, and seems to have a definite beginning and a definite end? When they were taking their questionnaires, several therapists asked what was meant by this question. As can be seen from the paragraph above about the interview with Agatha, this therapist thought structure meant who was in control, and involved a feeling of being "constrained." Obviously this area of assessment needs some work.

A suggestion for clarifying the definition of "structure" comes from the interview with Ed, in which he stated he particularly liked the lack of structure in his sessions, but expanded that to say that he liked that his therapy wasn't "rigid," that he and his therapists just started talking without a plan of where they were going, and that the therapy just went wherever it went. Perhaps the concept of structure in therapy applies more to the beginning of sessions than to where they end up.

Session Assessments

There were five questions in the Session Assessments related to this criterion:

1) Who directed or controlled your session, your therapist or you? r = 0.58 (0.33)
2) How much structure did your session seem to have? r = 0.08 (0.25)
3) Did therapist act as an expert or as an equal? r = 0.80 (0.84).
4) How confrontational was your therapist during your session? r = 0.53 (0.47)
5) How much homework were you given? r = -0.70 (-0.50)

Despite client resistance assessment problems, resistance showed some rather high correlations between *expectation-of-comfort* and *comfort*. As explained directly above, the questions about structure and homework were misunderstood by clients, and often by therapists, so did not produce very useful results. With this caveat, these correlations are very encouraging, despite the fact that only 9 sessions were analyzed, due to these matching recommendations being for high resistance only.

Conclusion

This matching criterion is worth retaining for further evaluation, but with several changes. Therapists' assessment of "control, structure, and directiveness" should be separated into three individual components. The assessment of amount of structure in therapy, both in the therapist questionnaire and in the session assessments, should be clarified, probably by replacing it with several questions that are more specific and less uncertain in meaning. Therapist assessment of amount of direction needs to be more directly and thoroughly determined.

Although issues related to homework usually given by a therapists may be useful for determining therapist directiveness, the conclusion is that this area of questioning should be

deleted from the matching system in relationship to resistance for three reasons:
1) It would be very difficult to tell if it worked during future assessments, due to the difficulty in exactly describing what constitutes "homework." Neither the therapists nor the clients know for sure where the line is between something being homework and not being homework.
2) The relationship between amount of homework and therapist directiveness was only a guess on the researcher's part, with no supporting evidence from the literature. This relationship may not even exist, and if it does exist, it is indirect at best. Only the question about the level of self-direction of homework might be relevant to assessing therapist directiveness, and this would only be pertinent if a therapist regularly gave clients homework.
3) The inverse correlation from the session assessments is not encouraging.

Client assessment of resistance in the client questionnaire needs to be improved with a better or more productive measure. Perhaps a more subtle assessment instrument can be located.

Session assessments need to be clarified and matched well with therapist questionnaire assessments.

The recommendation for the use of paradoxical interventions was very interesting, because not only was it strongly recommended by Beutler and associates (Beutler and Harwood, 2000), but it had "the most impressive record of effectiveness" of all the therapist techniques reviewed by Orlinsky, Grawe, and Parks (1994, p. 306). Unfortunately, not one therapist ever used this technique during this study. Therefore, there is no information at all to assess this matching recommendation. Because of this lack of information, and because this technique has been rated so effective by research, it should be retained unchanged. Hopefully in the future there will be enough information to assess its effectiveness.

Coping Style (Prescriptive Psychotherapy)

Matching Recommendations

According to Prescriptive Psychotherapy, clients' coping styes are either *externalizing* or *internalizing*. Externalizing people blame other people or external objects for their behavior or problems, while internalizing people blame themselves. For externalizing

patients, treatments are recommended that focus on external behavior or on changing symptoms, independently from any introspection by the patients. For internalizing patients, treatments are recommended that emphasize insight, self-knowledge, self-understanding, awareness, and emotional arousal.

Therapist Ratings from Questionnaires

Therapists' tendency to focus on external behavior or on changing symptoms versus on insight, self-knowledge, self-understanding, awareness, and emotional arousal was given the name *symptoms vs. insight*, and was used for several different criteria. It was assessed by evaluating all the help-ways except for providing hope, plus evaluating the two questions:

1) How much does your therapy focus on alleviation of symptoms, vs. on depth (underlying causes of problems)?
2) Is your therapy straightforward, practical, symptom-focused, educational, and supportive; or provocative, imaginative, involves novel thinking and experiences, focuses on self-exploration and discovery, and/or involves paradigm shifts.

The help-ways that would lean toward focus on symptoms are:

3) Develop new skills or learn new ways to behave in the outside world.
4) Get immediate help to take specific actions as soon as possible to make symptoms better.
5) Learn new ways to think about problems in order to have more control over them.

The help-ways that would lean toward focus on insight are:

6) Gain insight into, or understanding of, the causes of problems.
7) An opportunity for deep experiencing and increased awareness of feelings and sensations.
8) An opportunity to examine clients' lives in a growth producing climate.

For this overall assessment, on a scale of -59 to +59, the mean for all therapists was -12.3 with sd = 26.5 (positive = emphasis on symptoms, negative = emphasis on insight). This appears to be a fairly accurate assessment of therapist tendencies, as over two-thirds of the therapists of who were asked their orientation answered with descriptions that included either "psychodynamic" or "existential." In particular, Sam, the cognitive-behavioral therapist in the study had a rating of +47, and Carla, the existential therapist in the study, had a rating of -55.

Client Ratings from Questionnaires

Client coping style was assessed by asking three questions, combined with the score on Externalizing from the NEO Five-Factor Inventory. The three questions were:

1) To what extent are your problems caused by your own actions, thoughts, and feelings? (Mean = 5.62, sd = 1.04)

2) To what extent are your problems caused by the actions of other people? (Mean = 3.92, sd = 1.80)

3) To what extent are your problems caused by external situations not under your control? (Mean = 4.31, sd = 1.70)

The three main questions used for this assessment were not as productive as hoped. For the first question, the extremely high mean and low standard deviation shows that almost all clients answered that their problems were their own fault. The means and standard deviations on the next two questions show that most clients tended to be fairly neutral about whether their problems were caused by external people and situations. The final result from these three questions is that they seem to draw out answers weighted heavily toward clients being internalizers. This result could be because they were worded in a way to make this seem the correct answer. It also could be because of the order of the questions. That is, once clients had answered that their problems were caused by themselves, then it would not make sense to answer that they were caused by other people.

Taking all the questions together, plus the assessment from the NEO Five Factor Inventory, the mean for coping style, on a scale of -28 (internalizing) to +28 (externalizing) was -5.58 with sd = 7.18. Either this assessment was inaccurate, or people wanting to be matched to therapists tend to be internalizers. Either of these scenarios makes sense, since people who believed their problems were other people's faults would not be inclined to seek therapy. For future versions of the Matching Program, this assessment should be rewritten and expanded to try to get more accurate client assessments.

Interviews and Other Qualitative Information

There was only one participant therapist who tended strongly toward *focus on symptoms* (Sam = +47). Sam was matched with a Jane, who had a coping style slightly toward externalizing (+5 on the +-28 scale). Both client and therapist considered this an excellent match. All the other therapists matched with clients were strongly toward *focus on insight*. All the other clients except one were internalizers. Thus there was only one match

of an externalizing client with a *focus on insight* therapist. Qualitatively, this was the match that had the most problems, with the client stating she thought she would quit, despite the fact that she was desperate for help. There is no evidence that this aspect of the match was problematic, as the client said she was comfortable with the therapist, but thought that "nobody can help me." However, it does add some weight toward the idea of keeping this criterion.

Session Assessments

Since, as explained in Chapter 4, help-ways were not useful for correlations, there were only two questions left to assess correlations between *expectation-of-comfort* and *comfort* for this criterion:

1) Which did the therapist focus on: making your symptoms better, or examining the underlying causes of your problems? r = 0.27 (0.33).

2) Which of these styles best describes your session: straightforward, practical, educational, and supportive, or provocative, imaginative, and involved novel thinking and experiences? r = 0.54 (0.36).

These correlations are encouragingly high.

Conclusion

The conclusion is that this criterion should be retained. The only major change is that the assessment of client coping style might be expanded and improved. For measuring coping style, Beutler and Harwood (2000) recommend using the Systematic Treatment Selection computer software, which was developed by Beutler and his associates. Coping style is one of the areas directly measured by this assessment instrument. Beutler and Harwood also suggest that coping style can be measured by combining various scales of the Minnesota Mutiphasic Personality Inventory (MMPI). Both of these ideas should be examined.

Level of Distress and Impairment (Prescriptive Psychotherapy)

Matching Recommendations

There were three matching recommendations for this criterion. First, clients with low levels of distress and impairment should be matched to therapists whose treatments

involve high levels of emotional intensity, and vice versa. Second, clients with extremely high levels of distress and impairment should be matched to therapists whose therapy at first emphasizes support and anxiety reduction. Finally, clients with more severe problems should be matched to more structured therapy.

Client Ratings from Questionnaires

Client distress and impairment was measured by combining the score on the Global Severity Index of the Brief Symptom Inventory with the answer to two additional questions:

1) What is your current level of emotional distress during the past 7 days including today?
2) What effect are your problems and emotional state having on your functioning?

Client Level of Distress and Impairment, on a scale of -11 (minimum distress) to +11 (maximum distress) had a mean of -0.75 with sd = 5.38. The mean was close to zero, indicating the scale was fairly well-balanced. However, the standard deviation was smaller than would have been liked, indicating a strong tendency for clients to answer away from extreme ends.

Therapist Ratings from Questionnaires: Emotional Intensity

Therapy emotional intensity was assessed through three questions:

1) What is the general level of emotional intensity during your therapy sessions?
2) Is your therapy straightforward, practical, symptom-focused, educational, and supportive; or provocative, imaginative, involves novel thinking and experiences, focuses on self-exploration and discovery, and/or involves paradigm shifts.
3) The help-way *an opportunity for deep experiencing and increased awareness of feelings and sensations*.

The total ratings for therapist emotional intensity had a range of -14 (lowest) to +14 (highest). The mean for all therapists was 3.06, with sd = 5.63. This shows a rather strong tendency for therapists to see their therapy as having high emotional intensity.

Therapist Ratings from Questionnaire: Structure

The level of structure in therapy was assessed through two questions:

1) To what degree is your usual method of therapy structured? (Mean = 3.26, sd = 1.57).
2) To what degree is what happens during your therapy planned? (Mean = 2.71, sd = 1.32).

Question 1 produced answers that tended to be low, but had some variability, with

most therapists answering between 2 and 5. Question 2 produced almost all answers between 2 and 4. That is, almost all therapists thought they did not plan where their therapy was going ahead of time. Therefore, this question did not produce useful information for matching purposes. It seems these questions about structure were only moderately successful at best.

Therapist Ratings from Questionnaires: Support and Anxiety Reduction

Therapist emphasis on support and anxiety reduction was assessed through the following three questions:

1) The talk-subject *providing direct reassurance and/or support to clients*.
2) The help-way *[clients] develop more hope that they can solve their problems*.
3) Is your therapy straightforward, practical, symptom-focused, educational, and supportive; or provocative, imaginative, involves novel thinking and experiences, focuses on self-exploration and discovery, and/or involves paradigm shifts.

Combining these questions for all therapists on a scale of -11 to +11, the mean was 0.26 with sd = 3.84. This shows very little variation, with almost all therapists being more or less neutral (neither low nor high). However, this assessment is slightly suspect. The question from the list of subjects talked about does not ask how much support is usually given, but instead how much it is talked about. The question about hope is out of place in the list of help-ways, and is a rather indirect way of asking about focus on support. The third question was included because the left side has the word "supportive." However, this question is too complex and indirect to be very useful for determining therapists' tendencies to be supportive. For example, therapists could be extremely sensitive to providing support for high distress clients, yet also feel that their therapy involved novel thinking. None of these questions asked about anxiety reduction.

Despite these problems, these questions were used because questions had to be used for multiple purposes due to time and space restrictions. Even without these restrictions, it would probably be difficult or impossible to differentiate therapists according to how much their therapy at first emphasizes support and anxiety reduction. One would hope that all therapists would recognize that clients with very high levels of distress and impairment needed support and anxiety reduction at first. In any case, it is probable that all therapists

think they are able to do this, which makes assessing this very difficult.

Interviews and Other Qualitative Information

On the scale of +-11, the clients in the study had levels of *distress and impairment* of -7,-5, -1,2, 7, and 8. The clients with levels of +7 and +8 seemed to have great distress. One was afraid to come to the researcher's office by herself, and the other was in the study to help with panic attacks. On the other extreme, the client with the level of -7 was in the study only because of curiosity. However, the client with the level of +2 appeared to have very little distress or impairment, and the client with -5 appeared to have at least more than neutral distress and impairment. It seems that the assessment of amount of distress in clients worked very well for some clients, especially those with great distress or no distress, but not quite as well for clients more toward the middle.

As stated above, the therapist questionnaire results showed a rather strong tendency for therapists to see their therapy as having high emotional intensity. There is qualitative evidence that this assessment may be accurate. Of the five therapists who were matched, only one had a negative rating. Sam, the cognitive-behavioral therapist, had an *emotional intensity* rating of -6. In his interview, Sam described himself as having a "calm style" and even worried that for some people he might be too "composed" or too "stable."

The recommendation of matching high levels of distress and impairment with low levels of emotional intensity is supported to some extent by the mismatch on this criterion between client Linda and her therapist Wendy. Linda had a rather high level of *distress and impairment* of +8 on the scale of +-11. Therapist Wendy had a very high level of emotional intensity of +11 on the scale of +-14. Linda was the one client who, although rating her comfort with her therapist very highly, expressed the thought that the therapy wasn't working and she should just give up and quit therapy.

The recommendation of matching level of distress to amount of structure is supported very strongly in the interview with Ed, who had a *distress and impairment* level of -7, which was the lowest of all six clients. When asked if he thought he was better matched to his therapist Carla, who practices very unstructured Existential therapy, than he would have been to some other therapist, he answered "yes," and explained that this was because his therapy

had very little rigidity, and "wherever it went, it went." This description would coincide with a lack of structure, a lack of pre-planning, and lack of focus on symptom reduction. However, it is important to note that his therapist Carla, in her interview, expressed the opinion that she would have been better matched with this client if he had been in more distress, and thus motivated to stay in therapy longer to explore himself in more depth. Thus she felt that more distress would make this client more suited for her type of very unstructured Existential therapy.

A matching suggestion for clients with high levels of distress and impairment is suggested by the interview with Linda. Linda was very high on level of distress and impairment (+8). She was ready to give up her therapy because of a lack of hope, but had her hope restored by her therapists suggesting a technique she had never tried, EMDR. After her third session, she said she did not think any therapist could help her, and should probably just quit therapy and give up. However, in the third session, her therapist had suggested she try EMDR, and she wanted to give that a try. After she tried it, she said she had more hope that therapy would work for her, and was going to keep going for at least a few more sessions. This sequence indicates the importance of hope for clients with high distress. One might suppose that the suggestion of giving support to clients with high distress is in order to instill hope. In any case, even though hope wasn't specifically recommended for this criterion, perhaps it should be added. Then the question becomes how therapists can be assessed on this quality. One interesting answer is suggested by the interview with Linda. She became hopeful because of the possibility of trying a new technique. A possible extrapolation of this is that the more techniques a therapist holds out that a client in high distress can try, the more hope the client might have that one of them will work. It might therefore be interesting to ask therapists to list how many different techniques they have in their repertoire, and see what the result would be of matching this with clients' levels of distress.

Session Assessments: Emotional Intensity

Unfortunately, the correlations between *expectation-of-comfort* and *comfort* gave confusing evidence for the usefulness of this individual criterion. There were two questions in the session assessments that related to this area:

1) What was the general emotional intensity of your therapy session? r= 0.23 (0.32).
2) Which of these styles best describes your session: straightforward, practical, educational, and supportive, or provocative, imaginative, and involved novel thinking and experiences. r = -0.48 (-0.25).

Obviously the first question is a more accurate assessment of emotional intensity, since it asks the question directly instead of indirectly.

Session Assessments: Therapy Structure

There was only question relevant to this criterion:
1) How much structure did your session seem to have? r=0.30 (0.08).

Session Assessments: Support and Anxiety Reduction

The Session Assessments had two questions related to this criterion:
1) How often did your therapist give you direct support and reassurance? r = 0.22 (-0.17)
2) Which of these styles best describes your session: straightforward, practical, educational, and supportive, or provocative, imaginative, and involved novel thinking and experiences. r = -0.25 (0.03)

The first question is more useful, as it asks the relevant question directly. There was a small positive *Pearson's correlation*, but a small negative *Spearman's correlation*. This is a confusing result, which probably means the information from the session assessments is not useful. This is especially true because half of the clients were not included in this particular criterion, because it only applied to clients with relatively high distress and impairment.

Conclusion for Emotional Intensity

The conclusion is that this matching recommendation should be retained, at least for further testing, for several reasons. There was a small but positive correlation on the most relevant session assessment question. There is some small qualitative evidence that there may be some validity in this suggestion. The client assessments seem to have some validity. However, therapist assessment on emotional intensity needs to be improved, as the standard deviation of 5.63 on a scale of +-14 shows a relatively small range of values.

Conclusion for Amount of Structure

It was concluded that this matching recommendation should also be retained, at least

for further testing. One reason is the problems with clients and therapists assessing amount of structure, both potentially and in actual sessions, as described above in the section on resistance. This indicates that this recommendation was not adequately tested. If a method could be found to describe and assess structure more clearly and exactly, it would be worth trying this again. In addition, there was small but positive correlation between *expectation-of-comfort* and *comfort*. Finally, there is support from the interview with Ed, who had a very low level of distress, and particularly liked the lack of structure in his session.

However, the interview with therapist Carla indicated that this type of matching is not clear cut. Some clients with a lot of distress may prefer a lack of structure, and prefer depth over immediate symptom relief. These clients might be better matched to therapists who do not have a lot of structure. Perhaps the answer is to only match clients with a lot of distress to therapists with a lot of structure if the clients do not express a specific preference for therapy with depth over time and lack of structure. This would add a second level of matching to this program. That is, the assessment for one criterion would affect how the matching for another criterion was done.

Conclusion for Support and Anxiety Reduction

The conclusion is that this matching recommendation should be deleted. The primary reason is the great difficulty of assessing therapists on this dimension, as described above. In addition, there is no encouraging quantitative evidence. If a method is ever discovered for differentiating therapists on the amount of support and anxiety reduction they provide to clients with high levels of distress and impairment, this matching recommendation could be tried again. It seems an obvious suggestion for how therapists should treat clients, but an extremely difficult suggestion to use for client-therapist matching.

Conclusion for All Matching Recommendations for Distress and Improvement

For all three recommendations in this criterion, the assessment of client *distress and impairment* needs to be improved. This assessments appeared to be somewhat accurate for extremely distressed clients and clients with no distress, but not very accurate for clients near the middle of the range. The Brief Symptom Inventory (BSI) is not complete enough to give a clear indication of this assessment, as it only looks at anxiety, somatic problems, and

depression. If somatic symptoms are very low, it lowers the overall Global Severity Index on this instrument. The additional two questions for this assessment also need some improvement. Clients were slightly confused by the question about how severe there problems were during the past 7 days, that is, why the last 7 days were so important. (Specifically, two clients said they had been feeling a little better in the past week, but that was unusual compared to their general level of distress.) Asking about just the past 7 days was used to match the instructions in the BSI, which was on the previous page of the client questionnaire. It was assumed that there was a very good reason for asking about just the past 7 days, since the BSI is such a well-tested and accepted instrument. In spite of this, in the future this question should be made more general, not limited to just the past 7 days.

New Matching Suggestions

It is worth trying a new matching recommendation for clients with high distress and impairment. This is a concentration on instilling hope in these clients. This could only be added if some way of differentiating therapists on this quality could be found. Putting a question about hope in the help-ways did not work well, as it is too different from the other help-ways, and thus out of place.

In addition, it would be worth testing whether clients with high distress are more hopeful if their therapists have a large number of possible techniques at their disposal. This could be tested without actually being used for matching.

An interesting aspect of the interview with Linda, and also with her therapist Wendy, is that Linda's hopelessness was very evident, and the hope of EMDR working was what convinced her to stay in therapy. Although level of *distress and impairment* may to some extent correlate with hopelessness, a direct assessment of clients' hopelessness might be beneficial for matching, both in itself and as a component of *distress and impairment*.

Problem Complexity and Social Support (Prescriptive Psychotherapy)

Matching Recommendations

There were two matching recommendations for this criterion:

1) Clients with simple problems should be matched to therapy that focuses on symptom

relief, and clients with complex problems should be matched to therapy that is broader and focuses more on depth.

2) The more complex clients' problems, the less social support they have, and the worse their early relationships were, the more they should be referred toward therapy that is less action oriented, is less time based on a small fixed number of sessions, and that has the possibility of increased depth over time.

Client Ratings from Questionnaires

As described in Chapter 3, clients were scored on *problem complexity* by adding the number of problems determined through other assessments in their questionnaires, along with their rating on the Neuroticism index from the NEO Five Factor Inventory. There were seven areas that could count as one problem. Thus the possible range for the total number of problems was 0-7. (The six participant clients had problem complexities on this scale of 0, 0, 1, 1, 3, and 4). This is an extremely indirect and inexact measure of problem complexity, as it only counts a few specific problems, and leaves out any direct questions on this subject. To get a true rating of problem complexity, it would be necessary to assess problem complexity directly, by determining how many problems clients actually had, and also possibly the complexity of each individual problem. This could easily end up being a very time intensive assessment.

Clients' levels of social support was determined through four questions:

1) How much does your family care about you? (Mean = 1.31, sd = 0.48, range = 1-5, lower numbers = more family members who care more)

2) How much would your family do to help you? (Mean = 2.00, sd = 0.82, range = 1-5, 1 = almost anything, 5 = almost nothing)

3) How much do your friends care about you? (Mean = 2.00, sd = 1.22, range = 1-5, lower numbers = more friends who care more)

4) How much would your friends do to help you? (Mean = 2.31, sd = 1.11, range = 1-5, 1 = almost anything, 5 = almost nothing)

There seems to have been a strong tendency for clients and pilot testers to have a large amount of social support: some family members and friends who care a lot about them

and would do a lot to help them. Either the questions had very low validity, or the people in the study did have a lot of social support. These questions were designed for this one particular matching criterion of social support only. This seemed a large portion to devote to one matching recommendation within one criterion, especially since the questions did not have any use for any other criterion. It is surprising that there was such a small range of answers, with almost no answers in the higher ranges of 4 or 5 on any of these questions, ranges which would have indicated some lack of support from family or friends. Perhaps the large amount of social support for these participant clients was because they were from a relatively affluent geographic area.

Assessment of clients' early relationships were with one direct question:
1) How good were your early (childhood) relationships with your family? (Mean = 4.31, sd = 1.55, 1 = excellent, 7 = terrible).

From the mean and standard deviation, it is clear that almost all clients answered between 3 and 6. This is probably a reasonable range of answers for clients seeking therapy.

As described in Chapter 3, clients were assessed on the combination of problem complexity, social support, and poorness of early relationships by combining the scores from the assessments in these three categories. This produced a final score for this assessment with a possible range of 0-38, where any score above zero indicated a combination of these factors serious enough to trigger the matching recommendations. On this scale, every one of the six participant clients had a score of 0. This means that not one client had a rating on this scale that triggered the matching recommendations. It is clear from the answers to the social support questions that none of the clients felt they had very little or no social support. In addition, the highest number of problems on the problem complexity count was 4 out of a maximum of 7. The combination of these low numbers created such low scores on this assessment that it wasn't used for any client.

Therapist Ratings from Questionnaires

Therapists were assessed for the emphasis on symptom relief versus therapy that is broader and focuses more on depth by using the *symptoms vs. insight* rating described in the coping style section above. Therapists were assessed for the emphasis on action by using the

action orientation rating described in the stage of change section above.

The assessment for therapists' tendency toward longer term therapy, for therapy not based on a small fixed number of sessions, and for therapy that has the possibility of increased depth over time, was described in Chapter 3, and given the name *long-term-emphasis*. This assessment had a possible range of -18 (shorter term emphasis) to +18 (longer term emphasis), For all therapists, the mean was 3.32 with sd = 7.10. Thus almost all answers were between -4 and +10. This seems to accurately reflect the position of the therapists who took the questionnaire, who tended to be psychodynamic or use other systems interested in more depth therapy (e.g., existential).

Interviews and Other Qualitative Information

The first matching recommendation in this criterion was for symptom relief for simple problems, and depth therapy for complex problems. This recommendation was not supported by the interviews and other qualitative information. One of the clients with a *problem complexity* of 0 (on the scale of 0-7) was matched with an existential therapist, and was very happy with this match. In her interview, this therapist was asked if she thought her client was better matched to her than he would have been to some other therapist. Her answer was "I think better matched, ... because of [my] existential approach. If I was someone who had to have a problem to be able to relate to him, I would have had to try to make what was going on for him a problem. But since I'm not thinking through that lens, I'm much more thinking through the lens of understanding what's going on, I think I was well matched." At the other extreme, the client with the highest problem complexity, 4, had panic attacks and was only interested in immediate symptom relief. She was matched with a cognitive-behavioral therapist, and both the client and the therapist agreed in their interviews that they were extremely happy with the match. The client could not think of a single thing she thought could be better in her therapy, and the therapist called her a "poster child" for his type of symptom-relief focused therapy. This client's high complexity rating could have been because of deficiencies in the client assessment system. It seemed as if this client actually had a non-complex problem of mostly panic attacks. However, her reasons for wanting immediate symptom relief were not because her problems were simple, but because

they were causing her so much distress.

Session Assessments

Because there were no clients with a high enough combination of problem complexity, lack of social support, and poor early relationships to trigger the matching recommendations for this criterion, it was only possible to assess the first recommendation that the more complex the problems, the more therapy should emphasize depth as opposed to symptom relief, and vice versa. This recommendation is contained within part of the second recommendation, for matching less action orientation with more complex problems. Thus there is one testable recommendation related to problem complexity, and two questions on the session assessments related to it:

1) Which did the therapist focus on: making your symptoms better, or examining the underlying causes of your problems? r = -0.22 (-0.30).

2) Which of these styles best describes your session: straightforward, practical, educational, and supportive, or provocative, imaginative, and involved novel thinking and experiences. r = -0.45 (-0.26).

These negative correlations between *expectation-of-comfort* and *comfort* indicate that the opposite of the matching recommendations would have been better.

Conclusion

The conclusion is that the first matching recommendation in this criterion should be deleted. It seems intuitively obvious that clients who have simple problems that aren't severe might be going to therapy for exploration and depth, and therefore should not have therapy that is focused on symptom relief. It also seems intuitively obvious that the more complex a client's problems, the more distress and impairment the client would have. The more distress and impairment clients have, the more it seems they would need some immediate symptom relief. In addition, the correlations for this criterion were negative, indicating again that there was a tendency for clients with simple problems to like more exploratory therapy, and for clients with the relatively more complex problems to want more focus on their symptoms. This idea was also supported by the qualitative data.

The second matching criterion in this section is that the more complex clients'

problems, the less social support they have, and the worse their early relationships were, the more they should be referred toward therapy that is less action oriented, is less time based on a small fixed number of sessions, and has the possibility of increased depth over time. This has a similar element for the first recommendation in this section, in the respect that therapist action orientation would be somewhat similar to focus on symptom relief. As explained above, the recommendation of matching action orientation with low problem complexity was rejected. This would leave the recommendation that clients with low social support and bad early relationships be matched to less action oriented therapy. Again, this doesn't make sense from the standpoint that clients with low social support and bad early relationships would tend to have more distress and impairment, and thus would seem to need more immediate symptom relief, not more exploratory therapy.

The remaining recommendation is that clients with more complex problems, less social support, and worse early relationships, might need longer therapy. This seems intuitively obvious, although there was no way to test it in this study. Clients with these qualities would probably be the clients with the most distress and impairment. It does seem obvious that the more complex clients' problems are, the more therapy they might need. Therefore, the conclusion is that this one aspect of the matching should be maintained, at least until it has been tested in a future study. That is, clients should be assessed for problem complexity, and the more complex their problems, the more they should be matched with therapists who tended to have longer term therapy. However, to use this criterion, a better way to assess client problem complexity is required. One possibility for making this assessment is to ask clients to select from a list of problems. In terms of other client assessments, the conclusion is that amount of social support and excellence of early relationships should be deleted from assessments, as these seem to relate less directly to the question of length of therapy.

Project Match: 12 Step Programs for Addiction

*Matching Recommendation*s

If clients have alcohol or other addiction problems, and also have social networks that

support these addictions, then they should be matched with therapists who work with twelve step programs, or have other methods of replacing these social networks with more benign ones.

Recommendation Strength: Strong

As described in Chapter 2, Project Match was an extremely thorough multi-site research study. This study produced two direct client-therapist matching recommendations, both strongly supported by this research.

Client Ratings from Questionnaires

On a scale for alcohol addiction of 0-9, with 0 indicating no problems, the mean was 0.67 with sd = 0.78. For drug use being a problem, the mean was 0.50, with sd = 0.67. Thus there were no clients in the study who admitted to having alcohol or drug addiction problems. Therefore there was no useful quantitative data from the client questionnaire. There are assessment instruments that would have done a better job of assessing the existence of addiction problems than the few questions used in the questionnaire. The amount of space for this assessment was severely limited by the overall number of criteria for which space for assessment was needed. The only method of determining whether clients had social networks that supported addictions was to ask them whether they drank or used drugs alone or with other people. This is obviously not a very thorough method of assessing this characteristic. However, until this part of the questionnaire is tested with clients who do have addiction problems, there is no way to tell if this assessment system is adequate.

Therapist Ratings from Questionnaires

There was only room in the therapist questionnaire to ask therapists two questions: "For your clients with substance abuse or alcohol problems:"

1) How often do you work with, or refer to, 12 step programs? (Mean = 1.84, sd = 0.73, range = 1-5, 1 = *usually*, 3 = *sometimes*, 5 = *never*).

2) How important to your therapy is replacing these clients' social networks that support their addictions? (Mean = 1.94, sd = 0.73, range = 1-5, 1 = *usually*, 5 = *never*).

The means and standard deviations show that on both these questions, almost all therapists answered between 1 (*usually*) and 3 (*sometimes*), with a very strong tendency

toward answering 2 (*often*). No therapists answered 4 (*seldom*) or 5 (*never*). Therefore, these two questions did not elicit useful answers for differentiating therapists.

Interviews and Session Assessments

Because there were no clients in the study with addiction problems, there was no information in the session assessments or interviews that related to this criterion.

Conclusion

This criterion can only be retained if some way is found to differentiate therapists on the recommended therapy characteristics. If all therapists know about 12 step programs and recommend them whenever they seem appropriate, and all therapists are sensitive to the need to replace clients social networks that support addictions, then there is not way to match using this criterion. Perhaps the tendency toward using 12 step programs could be assessed by asking the relative importance in therapy of this type of referral. However, a good method of assessing therapists' abilities or interest in replacing social networks that support addictions would still be required. The conclusion is that this criterion should be deleted unless or until a better method for these therapist assessments is found.

Project Match: Non-Confrontational Therapy for Angry Clients

Matching Recommendation

Clients who tend to have a lot of anger should be matched with therapists who practice therapy that is particularly non-confrontational, such as Motivational Enhancement Therapy (MET).

Recommendation Strength: Strong

As described in Chapter 2, Project Match was an extremely thorough multi-site research study. This second client-therapist matching recommendation from this study was strongly supported by this research.

Client Ratings from Questionnaires

As described in Chapter 3, clients were assessed for their tendency to be angry through three specific questions plus the rating of Agreeableness on the NEO Five Factor Inventory. The scale for anger, before adjustments, had a possible range of +5 (least anger) to

+25 (most anger). On this scale, the mean was 15.42 with sd = 3.63. Although the mean was very near the center of this scale, the standard deviation is so small that it lessens the usefulness of this assessment. Qualitatively, very few of the clients, including the pilot testers, appeared to have any degree of general anger, yet somehow almost everyone ended up near the middle on level of anger.

Therapist Ratings from Questionnaires

Therapist level of confrontation in therapy was assessed through two questions:

1) In general, how confrontational is your therapy? (Mean = 4.77, sd = 1.43).

2) How directive are you with clients during therapy? (Mean = 4.03, sd = 1.38).

The mean and standard deviation on Question 1 indicate that most therapists answered between 3 and 6, which is a useful range, but slightly tilted toward non-confrontation, as would be expected. Question 2 had a slightly smaller range of answers, but has a mean almost exactly in the center. Although there were only two questions in this assessment, only one of which is directly related to confrontation, the answers appeared to be somewhat useful for differentiating among therapists.

Session Assessments

There were two relevant questions in the Session Assessments:

1) How confrontational was your therapist during your session? r = 0.43 (0.66).

2) Who directed or controlled your session, your therapist or you? r = 0.25 (0.25).

The correlations between *expectation-of-comfort* and *comfort* are very supportive of this matching recommendation, especially since the most relevant question is about confrontation, which is the exact subject of the recommendation.

Conclusion

The conclusion is that this criterion should be retained. It would be useful to expand and improve both the client assessment of anger and the therapist assessment of amount of confrontation. The client assessment had a very small range of answers. It probably needs more subtlety, to draw out a larger range of answers. The therapist assessment was based on only one direct question, which is not a very thorough method. It needs to have a couple questions added to assess more subtle aspects of confrontation.

Treatment Complexity and Client Tolerance for Complexity

Matching Recommendation

Therapists' tendency toward complexity in therapy was matched with clients' tolerance for complexity.

Recommendation Strength: Weak

As described in Chapter 2, this recommendation was based on only one study, which found that patients with high cognitive impairment had better outcomes in interpersonal therapy, and those with low cognitive impairment did better in coping skills training (Cooney, Kadden, Litt, & Getter, 1991). This matching recommendation is at least two steps removed from this one study. It was extrapolated from this study that clients would have different tolerances for complexity in general, and that this tolerance would extend to therapy complexity. It was also assumed that different therapies would have different complexities.

Client Ratings from Questionnaires

Clients were assessed on their tolerance for treatment complexity through two questions:

1) In solving problems, what is your preference for simplicity versus complexity (assume complex solutions are more complete)? (Mean = 4.23, sd = 2.09).
2) How well do you tolerate complexity? (Mean = 4.92, sd = 1.75).

These questions were created by the researcher for this one assessments. The mean and standard deviation on Question 1 indicates that clients did have a range in which they preferred complexity, with most answering between 2 and 6. This is the type of answers that were hoped for on all questions with a 1-7 scale: a mean near 4, and a fairly large standard deviation. Question 2 had worse results, with almost all clients answering between 3 and 7. This indicates a strong tendency for clients to think they tolerated complexity very well.

Therapist Ratings from Questionnaires

Therapy complexity was assessed with three questions:

1) Rate the complexity of your usual or preferred methods of treatment.
2) To what degree do you have a narrow or wide focus during therapy?
3) Is your therapy straightforward, practical, symptom-focused, educational, and supportive; or provocative, imaginative, involves novel thinking and experiences, focuses on

self-exploration and discovery, and/or involves paradigm shifts?

For all therapists, for the combination of all three of these questions, on a scale of -12 to +12, the mean was 0.94 (sd = 4.63). This indicates a very strong tendency to answer in the middle, with most ratings between -4 and +5. However, the participant therapists had a fairly wide range of answers, at -8, 1, 3, 7, and 9.

Interviews and Other Qualitative Information

There is information from the interviews that indicates that clients are not very good at self-assessing for their tolerance of complexity. Ed rated himself as 3 on the 1-7 scale in this category. He also rated himself as 1 on the 1-7 scale of preferring simple solutions as opposed to complex solutions. Yet his therapist described as a major focus of his therapy that he had such a complex life that he was always multi-tasking, "always doing ten things at once," which she also described as "there's a part of him, back there, I call it sort of making his phone calls while he's talking to me." The researcher knows Ed personally, and it is obvious that Ed definitely has a very high tolerance for, and enjoys, complexity. His work specialty is installing and repairing very complex heating and air conditioning systems, which he went into partly because he enjoys the complexity.

Perhaps complex things and situations seem fairly simple to people who are good at complexity, so some of these people do not realize that they prefer complexity and tolerate it very well. This idea is given some support from the fact that Ed had a tendency to rate his sessions as much more simple than his therapist did. For example, in his second session, he rated the complexity as -3 (as far toward simplicity as possible), while his therapist rated it +2 (almost as far toward complexity as possible). When asked about this discrepancy in his interview, Ed thought about the session, then indicated that, regardless of what the therapist thought, it seemed simple to him.

Session Assessments

There were two relevant questions in the Session Assessments:

1) Did your therapy seem to be simple or complex? r = 0.08 (0.03).

2) Which of these styles best describes your session: straightforward, practical, educational, and supportive; or provocative, imaginative, and involved novel thinking and experiences. r

= -0.11 (-0.19).

The correlations between *expectation-of-comfort* and *comfort* for these questions do not support the matching recommendation.

Conclusion

This matching criterion should be deleted. The correlations from the session assessments do not support the matching recommendation. The recommendation strength was weak to begin with. The question in the client questionnaire about tolerance for complexity, which was created by the researcher, had answers that indicated that clients tended to think they tolerated complexity very well. There is evidence from the interviews that clients are not very good at self-assessing for tolerance of complexity.

If in the future a valid method of assessing clients' tolerance for complexity becomes available, this criterion could be tried again. This would have to be a much more complete assessment than asking clients one direct question.

Clients' Perceptions of Reality

Matching Recommendation

Clients who tend to see things as much worse than they really are should be matched with therapists who tend to communicate to clients that things are better than clients think. Clients who see things as better than they really are (e.g., who might have problems that they are having trouble acknowledging) should be matched with therapists who tend to communicate that things are worse than clients perceive.

Recommendation Strength: Weak

This recommendation was based on one study, which found that therapists using different systems of therapy tended to have different ways of perceiving and communicating patient's perceptions of reality (Goldfried, 1991). Cognitive-behavioral therapists communicated to clients that things were not as bad as the clients thought, while psychodynamic-interpersonal therapists communicated that things were worse than the clients thought. There was no confirmation of these findings in the literature. There was no actual matching suggestion in this one study. The matching recommendation was based only

on the researcher's extrapolation from this study that clients with strong misperceptions of reality in a particular direction would be helped most by therapists who tended to communicate perceptions of reality in the opposite direction, thus helping the clients to correct their perceptions.

Client Ratings from Questionnaires

Clients were assessed through two questions and two assessments for other criteria:

1) Who believes your problems are worse, you or your family?
2) Who believes your problems are worse, you or your friends?
3) The level of *distress and impairment* as calculated for the criterion "Level of Distress and Impairment (Recommendations from Prescriptive Psychotherapy)."
4) The rating of Neuroticism from the NEO Five Factor Inventory.

For this overall assessment, for all clients, on a scale of -71 (thinks things are worse) to +71 (thinks things are better), the mean was -8.42 (sd = 26.17). Although there was a somewhat useful range of answers on these questions, the correspondence between the questions themselves and the client characteristic being assessed is obviously extremely weak. No existing instrument could be found that assessed whether clients thought their problems were better or worse than they really were. Because of time and space limitations, only two specific questions were created for this assessment. In addition, these questions did not seem to have any uses toward assessing characteristics for other criteria, so it was difficult to justify adding more questions for a more complete assessment.

Therapist Ratings from Questionnaires

Therapists were assessed for this criterion through two questions:

1) To what degree do you focus on acceptance of problems vs. overcoming problems? (Mean = 5.13, sd = 1.41).
2) To what degree do you focus on recognizing the severity of problems vs. optimism about overcoming problems? (Mean = 4.58 sd = 1.46).

The statistics for Question 1 indicate that almost all therapists tend to focus on overcoming problems. Either this question was worded in such a way that it drew out high answers, or almost all therapists want to overcome problems, and only look toward

acceptance if overcoming fails. Question 2 had a more useful range of answers.

Session Assessments

There were two relevant questions in the session assessments:

1) How did your therapist emphasize the severity of your problems? (1 = *Emphasized that my problems are not as bad as I think*, 7 = *Emphasized how bad my problems really are*). r = 0.15 (0.08).

2) Did your therapist emphasize overcoming your problems, or accepting them? (1 = *Accepting my problems and learning to live with them*, 7 = *Learning ways to solve or overcome my problems*). r = -0.22 (0.04).

The means and standard deviations for *amounts* for these two questions are relevant to the discussion of their results. For Question 1, the client assessment mean was 3.11 (sd = 1.53), and the therapist assessment mean was 3.65 (sd = 1.00). This indicates that there was a slight tendency for therapists to emphasize that problems were not as bad as clients thought, but that there was a somewhat useful range of answers. For Question 2, the client assessment mean was 5.11 (sd = 1.78), and the therapist assessment mean was 5.44 (sd = 1.25). This indicates that participants thought all therapists focused mostly on overcoming problems. This matched the results from the therapist questionnaire.

Conclusion

This criterion is worth trying again, but only with some major changes. It seems obvious that clients who believe things are better than they are because they won't admit their problems might be helped by an emphasis that they really do have problems that need work. It also seems obvious that clients who think things are worse than they are would be helped by an emphasis that things aren't as bad as they think, in order to engender hope, if for no other reason. The major question would be if therapists have different tendencies for these different emphases.

Because the client assessments were so weak, not much confidence can be had in the client ratings. Only one of the two therapist assessment questions produced any useful answers. In spite of these problems, there was a small positive correlation in the session assessments for the one useful therapist question. For the next version of the matching

program, it would be interesting to try this criterion again, with the major change that the questions on the client questionnaire relating to this client characteristic need to be expanded and drastically improved. In addition, the one useful therapist question from the therapist questionnaire should be retained, and the other question deleted. However, at least one other question for therapists must be added to help evaluate this characteristic.

If client and therapist assessments can be improved so that they have more face validity, and seem to much more accurately assess the client characteristics of thinking things are better or worse than they are, and the therapist characteristics or emphasizing that things are better or worse than they are, then this criterion should be tried again. Otherwise, if these assessments cannot be considerably improved, then this criterion should be deleted.

Anaclitic versus Introjective Dimensions

Matching Recommendation

Introjective clients are preoccupied with issues relating to their sense of self, self-worth, autonomy, and control. *Anaclitic* clients are overly focused on relationship issues such as intimacy, trust, and sexuality. The matching recommendation for these criteria are that introjective clients are matched to therapists who are less direct and who practice therapy that tends to be less time limited. Anaclitic clients are matched to therapists who are more direct and openly friendly.

Recommendation Strength: Moderate

These recommendations are based primarily on the research of Blatt, Shahar, and Zuroff (2001). Their recommendations were for therapists to adjust their styles, not for matching clients with therapists. However, they had very specific recommendations of therapy styles relating to assessments of these client personality traits. Their recommendations were based on psychotherapy research results, which found that anaclitic patients had better outcomes in psychotherapy than in psychoanalysis, while introjective patients had better outcomes in psychoanalysis than in psychotherapy. Therefore, their recommendations of techniques are one step removed from their research findings, and the matching recommendations in this matching system are one step removed from their

recommendation of techniques.

Client Ratings from Questionnaires

As described in Chapter 3, the assessment of these client traits was made with a reduction of the Dysfunctional Attitude Scale (DAS) (Weissman, 2000, p. 263). This reduction was made by the researcher specifically for this matching program. It had five questions to assess Need for Approval, purported to correspond to the anaclitic style, and five questions to assess Perfectionism, purported to correspond to the introjective style.

Although the traits of introjective and anaclitic are described as competing, where one or the other predominates in people, it did not appear that the DAS elicited this separation. To the contrary, the questions of the DAS that evaluated Need for Approval and those that evaluated Perfectionism were completely separate, and the answers to these questions seem to be independent of each other. That is, there does not appear to be any reason why a person high in Perfectionism would therefore be relatively lower in Need for Approval, and vice versa. This is confirmed by the one client who rated high on either anaclitic or introjective, who rated high on both: 6 on anaclitic and 7 on introjective (scales = 0-10). All other clients rated 0 or 1. (As explained in the Chapter 3, all clients below "neutral" on these scales were set to 0).

For Introjective, the mean for all clients was 0.92 (sd = 2.02). For Anaclitic, the mean was 1.5 (sd = 2.20). These are extremely low means and standard deviations. However, the traits are supposed to be evident only in clients with pathology, so perhaps this is not unreasonable, since most of the participant clients had no obvious pathology.

Therapist Ratings from Questionnaires

Therapist *directness* was assessed through five questions:

1) How much direction or control do you usually exert over what your clients discuss during therapy? (Mean = 3.19, sd = 1.38)

2) How directive are you with clients during therapy? (Mean = 4.30, sd = 1.38)

3) To what degree is your usual method of therapy structured? (Mean = 3.26, sd = 1.57)

4) In general, how confrontational is your therapy? (Mean = 4.77, sd = 1.43)

5) How often do you give specific advice to clients? (Mean = 3.48, sd = 1.81)

For this combination of questions, on a scale of -18 to +18, for all therapists, the mean was -1.16 (sd = 6.04). This indicates that almost all therapists were between -7 and +5. The mean is close to 0, which is good, but the standard deviation is rather small, showing a strong tendency for therapists to answer toward the middle. Perhaps these questions could be expanded in such a way as to elicit a wider range of answers. On the other hand, perhaps most therapists really do fall in the middle range of directiveness, and the answers to these questions were an accurate reflection of these tendencies.

Therapist emphasis on longer term therapy was assessed using the assessment named *long-term-emphasis*, which was made for the criterion Problem Complexity and Social Support. On a scale of -18 (shorter term) to +18 (longer term), the mean was 3.32 (sd = 7.10).

Therapist openness and friendliness was assessed through four questions:
1) What level of intimacy usually occurs during your therapy? (Mean = 5.13, sd = 1.34)
2) Place yourself on the following scales:

a) "I tend to be cooperative" versus "I tend to be competitive" (Mean = 2.52, sd = 1.26)

b) "I tend to be hard-headed and tough-minded" versus "I tend to be compassionate and tender-minded" (Mean = 5.71, sd = 1.19

c) "I tend to be argumentative" versus "I tend to be conciliatory" (Mean = 5.06, sd = 1.06)

As can be seen, almost all therapists saw themselves as having a great deal of intimacy in their therapy, and as being very cooperative, compassionate and tender-minded, and as being conciliatory. If one could believe therapists' self-assessments, they all seem to be open and friendly. Perhaps the problem is that the questions all had one side that might have a negative connotation. For example, what therapist wants to be seen as being competitive rather than cooperative?

For this combination of questions, on an openness/friendliness scale of -12 to +12, the mean was 5.39 (sd = 3.05). This confirms that this assessment did not work very well, as almost all therapists were between +2 and +8.

Interviews and Other Qualitative Information

Although only one client in the study rated high on either Anaclitic or Introjective,

there was another client who seemed as if she should have rated extremely high on Anaclitic. This was Ann, who was seeking therapy mainly because she had extreme concerns with how she was being perceived by other people. She had a brain surgery to alleviate symptoms of epilepsy several years ago, and since then has had some speech and verbal comprehension problems. Although she has a fairly good job, which she seems to do well, she was having a lot of trouble in her social life. She thought other people did not like her. She was afraid she seemed strange to them. She had trouble making friends and relating to other people. She was seeking therapy for this specific area of problems.

The definition of Anaclitic includes being overly concerned with relationship issues. Ann was primarily concerned with relationship issues, not necessarily overly concerned with them. However, Ann's being so concerned with these issues should have given her a much higher rating on the Anaclitic scale. Perhaps her comprehension problems made the assessment inaccurate. It is also possible the severe reduction of the DAS made this assessment too incomplete.

Ann is the only client who was convinced to try two highly rated therapists, and then pick the one she liked the best. The first question she was asked in her interview was why she liked the one she chose better than the other one. Her answer was that did not like the therapist she rejected because she was more "distant." The therapist she rejected had an openness/friendliness rating of +2, and the therapist she chose had an openness/friendliness rating of +8. These ratings are approximately one standard deviation below the mean and one standard deviation above the mean, respectively. Thus the therapist Ann did not like was at the low end of the actual therapist ratings, and the therapist she did like was at the high end.

Since a case could be made that Ann should have rated somewhat high on the Anaclitic scale, her preference for the lease "distant" therapist could be interpreted as support for the matching recommendations for Anaclitic clients.

Therapist Wendy was treating client Linda, who rated very high on both Introjective and Anaclitic. Blatt, Shahar, and Zuroff (2001) found that introjective patients, who tend to be perfectionistic and self-critical, have relatively more trouble developing relationships with

their therapists, and tend to drop out of therapy prematurely. They recommended that therapists take more time and care developing therapeutic alliances with these patients. Linda stated in her interview that her history is "usually, after I see a therapist three or four times, I terminate them." This certainly matches well with part of Blatt et al.'s description of the Introjective type. In her interview, Wendy made several relevant comments to this type of matching. She stated "to make a connection with her is a lot of work." She also said she felt it was best to not be directive with her client, but to "let her lead." Finally, she thought it was important to do some "process work" with her client, to take time and let their relationship develop at a deliberate pace. This information seems to confirm in general the recommendations by Blatt et al. for Introjective clients.

The recommendation for Introjective clients was for less directiveness. The recommendation for Anaclitic clients was for more directiveness. Client Linda was high on both dimensions. It is interesting that her therapist Wendy, in her interview, stated that although she had decided it was best to be less directive with this client, she had some unsureness, and said "I don't know if that's what she wanted as much, maybe she wanted more of a directive approach." This uncertainty was repeated by Wendy later in her interview, where, while discussing that she tried to let her client lead, she said "but then again, maybe I didn't do that enough. Maybe I came on too strong." It might be that Wendy intuitively picked up on this conflict of needs for directiveness for a client high on both of these traits.

Session Assessments

Because of the extremely low client ratings on anaclitic and introjective, the Session Assessments were not very useful for these two matching criteria. Although there were some extremely high correlations in both positive and negative directions (see Appendix L), they were based on very few data points, and as explained earlier, most of these data points represented clients with introjective and anaclitic ratings of only 1 on a scale of 0-10. Since the amount of *expectation-of-comfort* used for correlations is based on where the clients were on these scales, this makes the correlations equally suspect.

Conclusion

These matching criteria are worth trying again, after client and therapist assessments are improved. The qualitative information relating to the client Ann gives some support to matching Anaclitic clients to friendly and open therapists. The interviews with client Linda and her therapist Wendy give some support to the matching recommendations for Introjective clients. Quantitatively, the problems with the client and therapist assessments did not allow this matching to be adequately tested.

A possible solution for the client assessment would be to increase the assessment to include all the questions from the DAS relating to the Need for Approval Scales and the Perfectionism Scales. However, the DAS measures these traits for depressed clients. That is, these traits are considered two different types of depression (Blatt, Shahar, and Zuroff, 2002). This is confirmed by the description of this scale by it's creator (Weissman, 2000, p. 263), who states that its purpose is to identify cognitive distortions "that may underlie or cause depression." All other instruments suggested by Blatt, Shahar, and Zuroff are also for measuring these traits in the context of differentiating types of depression. The only suggestion by Blatt et al. not in the context of depression is that these traits can be determined "reliably from clinical case records" (p. 319). However, despite these problems, Blatt et al.'s description of the Sociotropy-Autonomy Scale (SAS) and the Personal Style Inventory (PSI) seem to imply that these scales are less dependent on the assumption of depression. Both of these instruments should be examined for the possibility of using them to retry this matching criterion with more complete and appropriate client assessment.

The therapist assessments of *directness* and *long-term-emphasis* are probably adequate to be used without major changes. The therapist assessment of openness and friendliness needs to be improved to give a wider range of answers. The questions making up this assessment need to be rewritten so that neither of the choices for these questions has negative connotations.

Five Factor Model of Personality: General Considerations

Recommendation Strength: Strong

The five-factor model of personality describes individuals' personalities based on the

five orthogonal factors of Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness (Costa & Widiger, 1994). The matching recommendations in the matching system were based on several very specific suggestions for client-therapy matching. One set of suggestions come from Miller (1991), who studied his own patients using this model over a period of two years. Although his suggestions are aimed at therapists individualizing their treatments based on patient characteristics, and his suggestions were based on his own experience, as opposed to being based on research, they were specific suggestions that could be included in a matching program. The other matching suggestions came from Anderson (1998), and were based on his review of the five-factor literature. Although his suggestions were again for therapists individualizing their treatments, many of them were based on the interactions of personality and psychotherapy that had been the subject of research.

Because this five-factor model has been extensively studied and discussed in the literature, and because the suggestions described above were very specific and sometimes based on psychotherapy research, the recommendation strength was considered fairly strong.

Client Ratings from Questionnaires

For these ratings, the entire 60 question NEO Five Factor Inventory (NEO-FFI) was included in the matching program. Although this is a shorter version of the more complete 240 question NEO Personality Inventory (NEO-PI), which is the standard of this field, it was the most thorough and lengthy section of the matching program, 60 questions of the total 160 questions in the section devoted to matching by client characteristics. Thus 37.5% of the client characteristic section of the matching program was devoted to the NEO-FFI. Although the NEO-FFI assesses the five factors, it does not include *facets*, which are sub-categories of the domains that are assessed by the NEO-PI, and include information that would have been extremely valuable for matching.

Five Factor Model of Personality: Neuroticism

Matching Recommendations

Neuroticism (N) measures emotional instability and distress, anxiety, and insecurity. The matching recommendations are:

1) The higher clients' N, the more they should be matched with therapists who emphasize longer term therapy that focuses on conflicts and generic patterns of behavior, such as mood regulation. The lower clients' N, the more they should be matched to brief therapy that focuses on symptoms, very specific problems, and advice.
2) The higher the N, the less psychopharmacology should be used. The lower the N, the more psychopharmacology should be used.

Recommendation Strength: Very Weak for #1 and Strong for #2

All these suggestions are from Anderson (1998), and are based on his review of the literature. Anderson's first suggestion is based almost completely on the suggestions in a chapter by Sanderson and Clarkin (1994). Sanderson and Clarkin start their chapter with the warning (p. 219) "Unfortunately, most of this chapter is based on clinical experience and is without the supporting evidence from multiple empirical observations." In addition, their recommendations for brief symptom-focused treatments assume the full NEO-PI has been used for assessment, and are for a complex combination of the five personality factors and their *facets*. They write (p. 224) "the NEO-PI profile for the ideal patient for planned brief treatment would show isolated but significant elevation on Neuroticism, high Opennness to Activities and Ideas, high Warmth (for rapport), and high Agreeableness." The suggestion related to Neuroticism is for *isolated* elevation, which would require the facets of the full assessment to determine. Sanderson and Clarkin do not clearly prescribe symptom-focused therapy for low N, and vice versa, as would be believed from Anderson's review. However, MacKenzie (1994, p. 245) suggests "affect control measures and relaxation exercises" for clients with very high N. Thus there seems to be suggestions to focus on symptoms and very specific problems for both high and low N. It seems that Anderson's suggestions to focus on symptom relief for low N, and focus on depth of understanding for high N, is only weakly supported.

Anderson's suggestions for psychopharmacology are based on several empirical studies, which seem to give them a high level of support.

Therapist Ratings from Questionnaires

Therapists' tendencies to focus on symptoms, very specific problems, and advice

versus their tendencies to focus on focuses on conflicts and generic patterns of behavior was determined using the assessment named *symptoms vs. insight* from the Coping Style section above. Therapists' emphasis on longer term depth therapy was determined using the assessment named *long-term-emphasis* from the Problem Complexity and Social Support section above. As discussed above, both these therapist assessments seemed to work fairly well.

Therapists' opinions on the use of psychopharmacology was assessed with one question:

1) What is your feeling about using psychopharmacology (medication) in conjunction with your therapy? (1 = *Medications are usually useful, and should probably be tried for most clients with serious problems*, 7 = *Medications should be used very sparingly, and only tried in the most extreme cases, or after most other methods have been unsuccessful*). (Mean = 3.48, sd = 1.59).

The statistics for this question indicate that almost all therapists answered between 2 and 5. This leans slightly in the direction of a tendency to use drugs, which seems to reflect the current feeling in society in general. This assessment appears to have accurately determined therapists opinions on the use of medication, especially since the question was so direct and clear.

Client Ratings from Questionnaires

For all clients, including pilot testers, on a scale of 1-5, the mean for Neuroticism was 3.42, with sd = 0.79. This is rather high, with a rather small standard deviation, but not unexpected in a population interested in or seeking psychotherapy. However, if the range of clients seeking therapy on N is very small, then N doesn't have great utility for differentiating among them for matching purposes.

Interviews and Other Qualitative Information

Clients with very mild problems, who also had low N, especially those who were participating only through curiosity, were only interested in very short term therapy. For example, Ed was participating purely from curiosity, and had a rating of N = 2. He only participated in the 3 sessions required by the study. Client Rose had N=3. She was

participating both from curiosity, and to have a therapist available in case she needed one for the future. Again, she participated in her 3 sessions needed by the study, and was very satisfied with the results and the number of sessions. At the other extreme, clients Linda and Mel had ratings of N = 4, and continued with their therapists after the end of the study. However, client Jane, who had one very specific problem (panic attacks), was interested in a short-term very focused fix for this one problem. Her rating was N = 4.

These results would seem to show that clients with very low N would be happiest in short term therapy without much depth. (That is, if these clients ever did seek therapy, and therapist matching, in the first place.) However, although some clients with very high N might need long term therapy, some clients who have high N because of one particular problem that creates distress and anxiety might be helped a lot by short term therapy that focused on symptom reduction, and that included psychopharmacology, as was the case for client Jane.

Session Assessments

There were four questions in the session assessments related to the first matching recommendation:

1) Which did the therapist focus on: making your symptoms better, or examining the underlying causes of your problems? r = -0.42 (-0.50).

2) Which of these styles best describes your session: straightforward, practical, educational, and supportive, or provocative, imaginative, and involved novel thinking and experiences. r = -0.39 (-0.25).

3) Did your therapist emphasize the benefits of short term therapy, or long term therapy? r = -0.38 (-0.37).

4) Did your therapy session seem to be simple or complex? r = 0.05 (-0.19).

The correlations between *expectation-of-comfort* and *comfort* were all very large and negative, which is not supportive of this matching recommendation.

There was not enough information related to psychopharmacology in the session assessments to make any correlations with this area, as only 7 sessions out of 18 were evaluated by clients, and therapists never discussed this subject with their clients.

Conclusion

This criterion should be deleted, for several reasons:

1) The correlations from the session assessments were strongly negative. This indicated that there was evidence that clients with higher N wanted more emphasis on symptoms, more practical advice, and more emphasis on shorter term therapy, and the opposite for clients with low N.

2) The client with the highest N particularly wanted shorter symptom-focused therapy with medication for her panic attacks.

3) The suggestions from Sanderson and Clarkin (1994), which were the basis for the suggestions by Anderson (1998), seem to imply that symptom focused therapy is indicated for both high and low N clients.

4) The mean of client N was fairly high, making this assessment not very useful for differentiating among clients.

It does make some sense that the best matches related to N might be the opposite of those recommended in the literature. Clients with very high N that was caused by anxiety (one of the components of N) might be expected to want immediate symptom relief to relieve anxiety. In addition, they might be uninterested in any exploratory long term therapy, as their emotional instability and insecurity might make them unwilling to commit to complex depth therapy. On the other hand, some clients with low N might not have specific symptoms that needed immediate attention, and might be more willing to look at themselves in depth.

One possible problem with the recommendations in this criterion is that the matching system is assessing for immediate client comfort, while these recommendations were for the overall success of therapy. It does make sense that clients high in N would have more success with therapy that had more depth through lasting longer, even though the thought of therapy taking longer and having more depth might initially make these clients more uncomfortable.

The conclusion for the recommendation for psychopharmacology is to disregard it, as it is not an important enough recommendation to justify including an assessment of Neuroticism for this one suggestion. This is especially true if matching in this area is based

on client preferences. If the NEO-FFI is used again in some future version of this matching program, then another attempt could be made to test this recommendation.

Five Factor Model of Personality: Extraversion

Matching Recommendations

Extraversion (E) reflects preference for interpersonal interactions and social situations, and being outgoing versus being introverted. The two matching recommendations were:

1) The higher the E, the lower the therapy structure should be, and vice versa.
2) The more "spontaneous speech and social interaction" required by the therapy, the higher E.

Recommendation Strength: Moderate for #1 and Weak for #2

Anderson's review of the literature led him to suggest the inverse relationship between E and structure. For this suggestion, he relied on Miller (1991) and Sanderson and Clarkin (1994). However, both of these sources rely on clinical experience, rather than any empirical studies. In support of this suggestion, MacKenzie (1994, p. 246) states that "structured cognitive approaches" may reinforce the tendency of clients high in introversion (i.e., low on E) to over-control themselves, and suggests less structured approaches such as interpersonal therapy instead. Again, this relies on clinical experience. It seems this suggestion has moderate support at best.

According to Miller (1991, p. 426), the more "spontaneous speech and social interaction" required by the therapy, the higher E should be for clients. This suggestion is based only on Miller's clinical experience.

Therapist Ratings from Questionnaires

Therapists' tendencies toward structure in therapy were determined the same as described in the section on More Structured Therapy for High Distress and Impairment above. As discussed in this section, this assessment was not very successful.

The amount of spontaneous speech required by therapy was determined through only one question to therapists: How much direction or control do you usually exert over what

your clients discuss during therapy? (Mean = 3.19, sd = 1.38). This question had a very low mean with a low standard deviation. Most therapists seem to think they do not exert much control over what clients discuss.

The amount of social interaction required by therapy was determined through four questions:

1) What level of intimacy usually occurs during your therapy? (Mean = 5.13, sd = 1.34)

2) In general, how confrontational is your therapy? (Mean = 4.77, sd = 1.43)

3) What is the general level of emotional intensity during your therapy sessions? (Mean = 5.03, sd = 1.05).

4) To what extent is your therapy under your control, vs. collaborative with your clients? (Mean = 5.65, sd = 1.31) (Higher numbers = more collaborative).

The most useful of these questions in differentiating among therapists was Question 2 regarding confrontation, which had the mean closest to 4, and the highest standard deviation. The question about emotional intensity had a standard deviation of only 1.05, indicating that almost all therapists answered between 4 and 6 on this question. The question about collaboration had an extremely high mean of 5.65, caused by what might be a strong positive connotation for the word "collaboration."

Client Ratings from Questionnaires

For all clients, including pilot testers, on the scale of 1-5, Extraversion had a mean of 2.92 (sd = 1.31). The mean is almost exactly in the center, and the standard deviation is fairly large for a five number scale. These ratings strongly support the utility of this scale for matching purposes.

Session Assessments

There was only one question in the session assessments related to matching Extraversion and therapy structure:

1) How much structure did your session seem to have? The correlation between *expectation-of-comfort* and *comfort* for this criterion, for this question, was r=0.09 (0.10). This does not lend much support to this matching recommendation.

There were five questions that related to the recommendation for spontaneous speech and social interaction:

1) Amount of therapist direction of session. r = -0.19 (-0.13).

2) Did therapist act as an expert or as an equal? r = -0.11 (0.02).

3) Emotional intensity of session. r = -0.28 (-0.44).

4) Emotional intimacy between client and therapist. r = 0.32 (0.55)

5) Amount of therapist confrontation. r = 0.34 (0.25).

Thus there seems support for the "social interaction" part of the second matching suggestion, but not for the "spontaneous speech" part. The first two questions were an attempt to assess the need for spontaneous speech. There seems to be no correlation between this and E. Questions 3, 4, and 5 were an attempt to assess the amount of social interaction during the sessions. The best indicator of this would be questions 4 and 5, which seem to be directly related to the level of social interaction. Question 3 seems to be related more to the intensity of this interaction. Questions 4 and 5 have moderately high correlations. This lends support to the suggestion that high E clients should be matched to therapists who tend to have high amounts of "social interaction" with their clients.

Conclusion

The suggestion related to structure was not strongly supported. The correlations in the session assessments were low, although positive. The original suggestion was not based on empirical studies. As described in the sections above on therapy directiveness for high client resistance and on structured therapy for high distress and impairment, there were major problems with the questions used to evaluate the amount of structure in sessions, both in the questionnaires and in the session assessments. If a measure of Extraversion is retained, this matching suggestion about session structure should be reevaluated when the questions about structure are expanded and improved, as described in these sections above. Therefore, it may be worth retaining this matching suggestion pending improvement of the structure questions and future reevaluation.

The suggestion related to spontaneous speech required was not supported, for three reasons.

1) The correlations from the session assessments were negative.
2) The original suggestion was based on clinical experience of one researcher.
3) The spectrum of answers by therapists for the amount they directed what was discussed during therapy was very small.

The amount of spontaneous speech required by therapy would seem to be dependent on the amount a therapist talked during therapy. However, a very non-talkative therapist could ask very direct questions, which could require very little spontaneous speech by clients. It seems this is an extremely difficult area to assess. Does any talking by a client in therapy qualify as spontaneous speech? After all, clients expect to do a lot of talking in therapy, regardless of their comfort with spontaneous speech in the outside world. For all these reasons, it was concluded that this matching criterion should be deleted from the matching. However, its efficacy could continue to be assessed if Extraversion is retained as part of a matching criterion.

The suggestion about level of social interaction seems to be supported. Although the original suggestions are not based on empirical research, the correlations from the most relevant questions in the sessions assessments are positive and moderately high. The assessment questions in the therapist questionnaire do need to be improved, however. The question about usual level of intimacy had a relatively high mean and a relatively low standard deviation, indicating a probable positive connotation that more intimacy is better. These therapist questions need to be improved and expanded to more directly and accurately assess the amount of social interaction required in therapy.

Five Factor Model of Personality: Openness

Matching Recommendations

Openness (O) measures openness to new experiences, appreciation of culture and art, imagination, creativity, and rebelliousness. The matching recommendations were that the higher clients are on O, the more their therapy should be provocative, imaginative, involve

novel thinking and experiences, focus on self-exploration and discovery, and/or involve paradigm shifts. The lower clients are on O, the more their therapy should be straightforward, practical, symptom focused, educational, and supportive.

Recommendation Strength: Moderate

These recommendations come from Miller (1991) and Anderson (1998). Miller's recommendations are based on his clinical experience. Anderson's recommendations in this instance are based in large part on Miller's recommendations, and in large part on similarities Anderson sees in between Openness and the concepts by Beutler et. al of Resistance and Coping Style (discussed in detail above), and studies by Beutler et. al relating to confirming the utility of these concepts (discussed in detail elsewhere in this dissertation). The key point is that these recommendations are supported by research only indirectly at best. However, both Miller and Anderson have similar conclusions about what therapy aspects go best with high and low Openness.

Therapist Ratings from Questionnaires

There were two questions for rating therapist dimensions on these qualities:
1) Is your therapy straightforward, practical, symptom-focused, educational, and supportive; or provocative, imaginative, involves novel thinking and experiences, focuses on self-exploration and discovery, and/or involves paradigm shifts. (Mean = 4.97, sd = 1.87).
2) How much does your therapy focus on alleviation of symptoms, vs. on depth (underlying causes of problems)? (Mean = 4.55, sd = 1.82).

Question 1 is obviously the most important, since it uses the direct words from the matching recommendation. The standard deviation is reasonably high, but the mean is higher than desired. Because standard deviations are so sensitive to outliers, the high standard deviation is not as meaningful as if the mean were lower. If possible, this question should be separated into components and somewhat reworded to try to reduce the positive connotations on the side of "imaginative," "novel," and "paradigm shifts," which seem more positive than "straightforward" and "practical."

The second question had a mean closer to the exact middle, but probably still needs some rewriting.

These two questions were used together for many matching criteria to try to ascertain therapists tendencies toward practical symptom relief or toward depth. Therefore it would be worthwhile to expand and rewrite these questions so that a more thorough and unbiased assessment of these tendencies could be obtained.

Client Ratings from Questionnaires

For all clients, including pilot testers, on a scale of 1-5, Openness had a mean of 4.17 (sd = 0.58). This is an extremely high mean, with an extremely small standard deviation. This result could be because all of the clients in this study lived in Marin County, California, which could be the Openness capital of the world.

Interviews and Other Qualitative Information

The Openness rating for the participant clients were 3, 4, 4, 4, 5, and 5. The client with 3, the lowest rating in this study, was the client with panic attacks, who wanted immediate symptom relief. She was matched with a cognitive-behavioral therapist, and was the most happy with her match of any of the participant clients. In her interview, she could not think of a single thing she did not really like in her therapy. The two clients with ratings of 5 were matched with an existential therapist and a therapist who practiced "phenomenology psychology" and works a lot with Myers-Briggs assessment. This second therapist described herself in her interview as focusing mostly on causes of problems, as opposed to immediate symptom relief. Both these clients were extremely happy with their matches. Therefore, there seems to be some qualitative support for this matching recommendation.

Session Assessments

There were two relevant questions in the session assessments:

1) Which of these styles best describes your session: straightforward, practical, educational, and supportive, or provocative, imaginative, and involved novel thinking and experiences? r = 0.49 (0.31).

2) Which did the therapist focus on: making your symptoms better, or examining the underlying causes of your problems? r = 0.43 (0.32).

The first was the obvious question that rephrased the matching suggestion as closely

as possible. The second question, about focus on symptoms or causes, has been used throughout this study to assess similar focus assessed by the first question. The high correlations seem to fairly strongly support this matching recommendation.

Conclusion

It appears that these matching suggestions should be retained. The correlations from the session assessments were fairly supportive. There was some qualitative support from the interviews. The major problem is that the levels of client Openness were so high. Perhaps the matching recommendation could be slanted toward a higher mean, by considering anything under 4 as low and only 5 as high. This should be tested by future studies.

Five Factor Model of Personality: Agreeableness

Matching Recommendations

Agreeableness (A) reflects friendliness, compassion, cooperativeness, and, in the opposite direction, antagonism and hostility. There are three matching recommendations for clients low in A, but no corresponding recommendations for clients high in A. Clients low in A should be matched to:

1) Therapy that has a high focus on symptom reduction.
2) Therapy that has a high focus on support.
3) Therapy that has a low level of direct confrontation.

Recommendation Strength: Moderate

As usual for this Five-Factor criterion, the recommendations come from Miller (1991) and Anderson (1998). For this recommendation, Anderson cites a very wide variety of support, although as usual all of it is indirect.

Therapist Ratings from Questionnaires

Therapists' tendencies to focus on symptom reduction was assessed with the same questions as used in the section above on Openness, and thus all the same comments made above would apply here:

1) Is your therapy straightforward, practical, symptom-focused, educational, and supportive;

or provocative, imaginative, involves novel thinking and experiences, focuses on self-exploration and discovery, and/or involves paradigm shifts.
2) How much does your therapy focus on alleviation of symptoms, vs. on depth (underlying causes of problems)?

Therapists focus on support was determined mostly through:

3) The talk-subject *providing direct reassurance and/or support to clients*. (Mean = 2.35, sd = 0.80).

4) The help-way *[clients] develop more hope that they can solve their problems*. (Order mean = 4.39, sd = 1.54; how-often mean = 1.68, sd = 0.87).

Therapist level of confrontation was determined with the question:

5) In general, how confrontational is your therapy? (Mean = 4.77, sd = 1.43).

Questions 1 and 2 about symptom reduction are somewhat useful for differentiating therapists, but need some rewriting, as discussed above in the Five-Factor Openness section above.

Since Question 3 had possible order ratings of 1-4, where the exact center would be 2.5, its statistics show it seems to have produced a useable differentiation among therapists. The statistics for the order scores on Question 4 do seem useful. However, the how-often mean so close to 1 (always) indicates that therapists think they provide hope fairly often, even though when pressed to compare this with other methods of help during therapy, they put less emphasis on it. In general, these two questions are not a convincing method for determining the amount of focus on support. The question from the list of subjects talked about does not ask how much support is usually given, but instead how much it is talked about. The question about hope is out of place in the list of help-ways, and is a rather indirect way of asking about focus on support.

Question 5 does appear to have been useful, as discussed in the section directly before this section on Five-Factor Extraversion.

Client Ratings from Questionnaires

For all clients, including pilot testers, on a scale of 1-5, Agreeableness had a mean of 2.67 (sd = 1.23). Despite the slightly low mean, there were only two of the six participant clients who were low enough on A to trigger the matching recommendations.

Interviews and Other Qualitative Information

The client rating mean of 2.67 seems a little low, as none of the clients seemed to be especially angry. The Agreeableness ratings for the 6 participant clients were 2, 2, 3, 3, 4, and 5. Only the two clients with ratings of 2 were low enough to meet the matching recommendations, which were only for clients low on A. In their session assessments, some clients were asked to rate how comfortable their therapists were when the clients were angry. The clients were questioned about this assessment in their interviews, and all indicated they had problems answering it, because they never were angry during sessions. However, most of the clients did seem to be fairly strong-willed people who would stand up for themselves, and perhaps this lowered their agreeableness ratings.

Session Assessments

There were four questions that assessed the three matching recommendations:

1) Which did the therapist focus on: making your symptoms better, or examining the underlying causes of your problems? r = -0.41 (-0.52).

2) Which of these styles best describes your session: straightforward, practical, educational, and supportive, or provocative, imaginative, and involved novel thinking and experiences? r = -0.04 (-0.05).

3) Amount of direct support and reassurance in session. r = 0.39 (0.03).

4) Level of therapist confrontation in session. r = 0.64 (0.65).

Questions 1 and 2 assess the matching recommendation of high focus on symptom reduction for clients low on A. The correlations between *expectation-of-comfort* and *comfort* on these questions do not support the matching recommendations, especially since the first question refers most directly to the this recommendation, and had a high negative correlation.

Question 3 refers to the recommendation for direct support for clients low on A. The Pearson's correlation for this question is fairly high, but the Spearman's correlation is almost zero. This is slightly encouraging, but not convincing.

Question 4 relates to the suggestion for low levels of confrontation for clients low on A. Clients low on A are clients with more anger, and obviously any aware therapist would try to have lower levels of confrontation with clients who tended to be more angry. This is

born out by the high correlation on this question.

A major problem with all these session assessments is that there were only two clients low enough on A to have these recommendations take effect, and thus only 6 pairs of answers on the session assessments (2 client-therapist pairs times 3 sessions each). This is too few answers to have any great confidence in the correlations.

Conclusion

There were too few answers on the session assessments to reach any strong conclusions. There is some indication that the recommendation for symptom reduction for low A is not supported, but that the recommendations for high level of support and low confrontation for low A is supported.

Therefore, the conclusion is that the client assessment of Agreeableness should be retained. Recommendations relating to support and confrontation should be retained. Recommendations relating to symptom reduction should not be explicitly retained, but should continue to be tested as if they were retained. All recommendations should continue to be tested.

Therapist questions to determine focus on support need to be expanded, rewritten, and placed in different contexts, in order to more specifically determine this therapy aspect.

Five Factor Model of Personality: Conscientiousness

Matching Recommendations

Conscientiousness (C) measures organization, persistence in pursuing goals, focus, self-discipline, and motivation. Recommendations are for clients low on C only. For these clients, therapy was recommended that:

1) Does not require hard work.
2) Includes as little discomfort as possible.
3) Does not include homework.
4) Is more structured.
5) Has an emphasis on behavioral therapy and skills training.

Recommendation Strength: Moderate

As usual in this Five Factor section, the recommendations come from Miller (1991) and Anderson (1998). For this recommendation, Anderson does not give any published sources. Miller as usual relies on his clinical experience. Both Miller and Anderson agree that therapy is relatively easy with clients high on C, and extremely difficult with clients low on C.

Therapist Ratings from Questionnaires

The assessment of whether therapy requires hard work was through a question created specifically to address this subject, as no other question was in the questionnaire that was relevant:

1) How hard do clients have to work to obtain good results from your therapy? (Mean = 5.52, sd = 1.23).

The assessment of discomfort was through the question:

2) In general, how confrontational is your therapy? (Mean = 4.77, sd = 1.43,).

The assessment of the amount of homework required was through two questions:

3) To how many of your clients do you assign homework? (Mean = 4.23, sd = 1.94).

4) When you assign homework to a client, how often do you do this? (Mean = 3.81, sd = 1.96).

Therapists' tendencies toward structure in therapy were determined the same as described in the section on Distress and Impairment above.

5) To what degree is your usual method of therapy structured?

6) To what degree is what happens during your therapy planned?

Emphasis on behavioral therapy and skills training was determined through

7) The help-way *develop new skills or learn new ways to behave in the outside world.* (Order mean = 3.84, sd = 2.00; how-often mean = 1.97, sd = 0.91).

Question 1 had an extremely high mean. Almost all therapists answered between 4 and 7 on this question. It seems that therapists think therapy must almost always require some degree of hard work to be successful. Therefore, the recommendation that clients high in C be given therapy that doesn't require hard work was not very useful.

Question 2 was useful for measuring confrontation, but not very useful for measuring

discomfort in therapy. There was no obvious better way to assess this with a combination of the existing questions, and the matching recommendation did not seem to have enough support to warrant adding a special question to the therapist questionnaire.

Questions 3 and 4 about homework seem to differentiate therapists effectively. The both had means close to 4, with fairly high standard deviations.

As discussed in the section on Distress and Impairment above, the assessment of amount of structure in therapy using Questions 5 and 6 was not very successful.

Question 7 was an attempt to specifically include behavior therapy in the list of help-ways. It had a possible *order* rating of 1-7. Its mean was closest to the center (4) of any of the help-ways. This fact, along with its fairly high standard deviation, indicates it was useful for differentiating therapists. As with the other help-ways, the *how-often* mean was close to "always," which was given the value of 1. Therapists tended to answer that they used all the help-ways very often, which makes this ratings not as useful as the forced order ratings.

Client Ratings from Questionnaires

For all clients, including pilot testers, on the scale of 1-5, Conscientiousness had a mean of 2.50 (sd = 1.17). Thus almost all the clients had C between 1 and 4. Specifically, the participant clients had C's of 1, 1, 2, 3, 4, and 4. The pilot testers had C's of 1, 2, 2, 3, and 4. This seems rather low, and is discussed in detail in the section on qualitative information below.

Interviews and Other Qualitative Information

The low mean of 2.5 for client Conscientiousness is surprising, given that most of the clients seemed to be very conscientious people. For example, all the clients but one (including pilot testers) presently had or recently had full time jobs that required moderate to high conscientiousness. One client in the study, who works as a paralegal, and whom was personally known by the researcher to be extremely conscientious, had a rating of C = 2. Another client in the study, who owns and manages her own clothing store, had a rating of C = 1. A third client, whose job is drafting, which requires great conscientiousness, had a rating of C = 1. The pilot tester with C = 1 works as a bookkeeper. One of the two pilot testers with C = 2 works as a 911 operator, and the other just received her BA in physics

from a prestigious state university. All clients who were shown their ratings after taking the NEO-FFI thought that all the ratings made sense except for C, which they almost uniformly were surprised was so low.

The Conscientiousness section of the NEO Five-Factor Inventory seems to be lacking in validity. The part of the computer matching program that calculated C was thoroughly checked by doing ratings by hand for several clients, and it seems to be accurate. The cause of the problem is not known, but it is clear there is a problem. Perhaps the setting in which it is being used, which is in conjunction with other assessments, is causing some sort of interference. It would not be prudent to do any further matching using this rating without this problem being solved.

Session Assessments

Unfortunately, despite the five matching recommendations, there were only two questions that could be used from the session assessments to evaluate the matching recommendations for Conscientiousness:

1) How much homework were you given? r = -0.25 (0.10).

2) How much structure did your session seem to have? r = -0.30 (-0.15)

There were no questions that applied to the amount of hard work required, or the amount of discomfort. The assessment of behavioral therapy and skills training was supposed to rely on the assessment of the help-way on that subject, but the help-ways were not useable for these assessments, for reasons described earlier in this dissertation.

The correlation between *expectation-of-comfort* and *comfort* for these two questions from the session assessments are not encouraging. However, there were only 9 sessions evaluated, because only 3 of the clients in the study had C low enough to trigger the recommendations, which were for low C only.

There was a serious problem in the assessment of homework, which is described fully in the section above on Client Resistance and Therapy Directiveness. There was also a serious problem in the assessment of structure, which is described in the same section.

Conclusion

These recommendations should be deleted. The main reason for this conclusion is the

problems with the client assessment of C. If the client ratings of C are faulty, then the recommendations do not make sense. There are also some problems with the therapist assessments for the qualities recommended for this matching. Finally, any evidence from the session assessments is negative. Taking all of this together, there is strong support for removing these matching recommendations.

Five Factor Conclusion Summary

Testing for Neuroticism, and any matching based on Neuroticism, should be abandoned. Testing for Conscientiousness, and any matching based on Conscientiousness, should be also abandoned.

Testing for the other three factors of Extraversion, Openness, and Agreeableness, should be retained, with the changes described in their respective sections above.

It is possible that if the full NEO-PI had been used, more complex information would have been obtained, which could have been used to test more sophisticated matching suggestions, and also to inform the client assessments used for other criteria. This would be interesting to try at some future time, depending on time and space considerations in the client questionnaire.

Affiliation and Control

Matching Recommendations

In this theory of affiliation and control (Berzins, 1977; Kiesler, 1992), *affiliation* refers to friendliness, and ranges from very hostile to very friendly, while *control* measures dominance versus submissiveness. The matching recommendations are that dominant therapists should be matched to submissive patients, submissive therapists to dominant patients, friendly therapists to friendly patients, and hostile therapists to hostile patients.

Recommendation Strength: Strong

There is some research evidence that this type of matching in therapy would be beneficial. The Indiana Matching Project was a 4-year attempt to develop a procedure for

matching patients and therapists (Berzins,1977). This study found that "Favorable pairings generally conjoined submissive, inhibited, passive patients with dominant, expressive, active, cue- and structure-emitting therapists, and sometimes vice versa" (Berzins, p. 243). Talley, Strupp, and Morey (1990) investigated the effect on outcome of interactions between therapist and patient needs and self-concepts of affiliation and autonomy. *(Autonomy* refers to needs and self-image related to control.) They found that patients with high affiliation self-concepts (very friendly) had much better outcomes with therapists who also had high affiliation self-concepts. However, there was no significant interaction of any type for patients with low affiliation self-concepts. Kiesler (1992) studied the interaction between patient-therapist complementarity on affiliation and control and the therapeutic alliance. He found there was a positive association between this type of complementarity and the perceptions of the therapeutic alliance by both patients and therapists.

Client Ratings from Questionnaires

Client affiliation was assessed by using the Agreeableness scale of the NEO Five Factor Inventory. Agreeableness measures friendliness, compassion, cooperativeness, and, in the opposite direction, antagonism and hostility. This seems to have excellent face validity for measuring the dimension of Affiliation, which is a measure of friendliness versus hostility.

Client *Control* (dominance versus submissiveness) was assessed through four questions created specifically for this assessment:

1) In a group of people, are you usually a leader or a follower? (Mean = 3.69, sd = 2.39, 1 = leader, 7 = follower).

2) How do you feel about giving orders to other people? (Mean = 3.23, sd = 1.83, 1 = like, 7 = dislike).

3) How do you feel about following orders from other people? (Mean = 4.77, sd = 1.59, 1 = like, 7 = dislike).

4) If it was completely up to you, would you prefer to be a leader or a follower? (Mean = 2.85, sd = 1.68, 1 = leader, 7 = follower).

For Question 1, the mean close to the center (4) and the very large standard deviation

implies that there was a useable spectrum of answers, with people spreading themselves pretty much on both sides of neutral. For Question 2, it seems that most people like giving orders, so this did not separate people very well into submissive versus dominant. Question 3 had the same problem in the opposite direction. It seems that most people dislike following orders, so again this was not very useful. Question 4 was even less useful than the other questions, as it seems almost everyone would prefer to be a leader.

Overall, these questions did not work very well to assess the dimension of *control*. Because of time and space limitations, there was an attempt to compress this assessment into as few questions as possible. Obviously, the assessment of control needs a lot of work if it is to continue to be included in the matching system.

Therapist Ratings from Questionnaires

To assess therapists on the dimension of *affiliation* (friendliness versus hostility), they were asked to place themselves on the following scales:

5) "I tend to be cooperative" versus "I tend to be competitive" (Mean = 2.52, sd = 1.26)

6) "I tend to be hard-headed and tough-minded" versus "I tend to be compassionate and tender-minded" (Mean = 5.71, sd = 1.19)

7) "I tend to be argumentative" versus "I tend to be conciliatory" (Mean = 5.06, sd = 1.06)

The assessment of amount of intimacy in their therapy was also included:

8) What level of intimacy usually occurs during your therapy? (Mean = 5.13, sd = 1.34)

These are the same questions that were asked in the section above on Anaclitic versus Introjective Dimensions. As described in that section, almost all therapists saw themselves as having a great deal of intimacy in their therapy, and as being very cooperative, compassionate and tender-minded, and as being conciliatory. It seems that all therapists tend to see themselves as very friendly, which makes assessment on this dimension very difficult. There may be hostile therapists, but it seems either they are not aware of this fact, or they have stopped doing therapy.

To assess therapists on the dimension of Control, they were asked them to place themselves on the following scales:

1) "I like to lead others" versus "I like to follow others" (Mean = 3.00, sd = 1.21)

2) “In a group of people, I usually am a leader” versus “In a group of people, I usually am a follower” (Mean = 3.00, sd = 1.06)

3) “I like giving orders” versus “I dislike giving order” (Mean = 4.29, sd = 1.72)

4) “I like following orders” versus “I dislike following orders” (Mean = 5.00, sd = 1.41)

They were also asked the following four questions:

5) How much direction or control do you usually exert over what your clients discuss during therapy? (Mean = 3.19, sd = 1.38)

6) How directive are you with clients during therapy? (Mean = 4.30, sd = 1.38)

7) To what extent is your therapy under your control, vs. collaborative with your clients? (Mean = 5.65, sd = 1.31) (Higher numbers = more collaborative).

8) In general, how confrontational is your therapy? (Mean = 4.77, sd = 1.43)

Most of these questions were not very useful. Almost all therapists in this sample seemed to like to lead others. All the therapists saw themselves as leaders. There was some variety in whether or not the therapists liked to give orders, but all the therapists disliked following orders. Almost all the therapists tended to not exert much control over what is discussed during therapy. There was some variation in how directive in general the therapists thought they were. All the therapists saw themselves as almost completely collaborative rather than controlling in therapy. Most of the therapists thought they were fairly confrontational.

The overall result from these questions is the lack of a clear differentiation of therapists along the dimension of dominant versus submissive. Adding all these questions together, on a scale of -24 (submissive) to +24 (dominant), the mean for all therapists was 1.06 with sd = 4.75. This is a very small standard deviation for such a large possible range of values. The individual scores for the therapists in the study were -5, -3, -1, 8, and 8. This is actually somewhat encouraging, as there was a noticeable difference in values.

Not much confidence can be had in the overall assessment on the dimension of Control, mostly because of the problems with the individual questions used. If all therapists are leaders, dislike following orders, and are collaborative, there are not enough useable questions left directly related to Control to give a clear picture.

Interviews and Other Qualitative Information

On the scale of -12 (dominant) to +12 (submissive) for the participant clients, the ratings were -9, -1, 0, 1, 1, and 2. Thus there was only one client with a high enough rating in either direction to produce useful information from sessions. The client with the rating of -9 was a man know personally by the researcher. He appears to be person who is not particularly dominant. He is soft-spoken, and not particularly assertive. In his interview, he discussed a problem he was having with an employee, who he wished would change the way he was doing something. However, he was reluctant to ask this person to change. He said he needed help from his therapist about "how to approach [asking this person to change] without offending him." This does not seem indicative of an extremely dominant person. This is an indication that the assessment of Control is not very accurate.

Session Assessments

There was only one relevant question in the session assessments:

1) How friendly and open was your therapist during your session? r = 0.45 (0.08)

The mean for clients' ratings of *amount* on this question was 6.06 (sd = 0.73). The mean for therapists ratings of *amount* of their own friendliness was 6.28 (sd = 0.75). This indicates this wasn't a very useful question, as all therapists were pretty much seen as very friendly. This also means that any correlations using this quality should not be taken very seriously.

There were three questions in the session assessments related to Control:

1) How confrontational was your therapist during your session? r = -0.06 (0.32)
2) Who directed or controlled your session, your therapist or you? r = 0.11 (0.02)
3) Did therapist act as an expert or as an equal? r = -0.17 (-0.12).

These correlations do not indicate that there was any effect of this interaction.

Conclusion

It was concluded that the matching recommendation based on Affiliation should be retained for further testing, but only if better assessment methods can be found. The main problem with the matching system was that the assessment of therapist friendliness was so

suspect. In their questionnaire, all therapists saw themselves as basically friendly. In the session assessments, clients and therapists saw the therapists as extremely friendly.

In was concluded in a section above that the recommendation should be kept that Anaclitic clients be matched to therapists who are more direct and openly friendly. Therefore, a method will be needed for assessing therapist friendliness, both in the questionnaires and session assessments, whether the matching recommendation for Affiliation is retained or not. Therefore, it is worth retaining, at least for further testing.

It will not be very useful to continue assessing therapists with questions that give no range of values. Even if all therapists are basically friendly, there still should be a range of friendliness. What is required is a more subtle way to measure this, both in self assessments on the therapist questionnaires, and in the session assessments.

It was concluded that the matching recommendation based on Control should also be retained, but again only if more accurate methods of assessing clients and therapists on this dimension can be found, and if there is room in their questionnaires for these assessments. In practice, this may mean that this recommendation is actually deleted, since space will be needed for other matching criteria that have more support, and have assessment questions that can be used for more than one criterion. Although there was no positive evidence in the study that this matching recommendation was effective, the research evidence for its effectiveness if strong. The lack of positive evidence in the study may be because the assessments of both therapists and clients on this dimension were so lacking in validity. These assessments were in large part based on four questions created by the researcher, which had never been tested in any way except in limited pilot testing. It would be interesting to try this matching suggestion with a more standardized instrument for assessing dominance vs. submissiveness. However, this may not be possible within the context of the limited space in the matching program.

Attachment Style

Matching Recommendations

There were four matching recommendations, based on the extent clients are Ambivalent or Avoidant:

1) Avoidant clients should be matched to attuned, following, warm, flexible "holding" type of therapy, while Ambivalent client should be matched to firm, consistent therapy with clear boundaries.

2) Avoidant clients should be matched to therapists who are better at attunement and empathy, while Ambivalent clients should be matched to therapists who are better at structures and boundaries.

3) Avoidant clients should be matched to therapists who help them experience, or get more in touch with, their emotions, while Ambivalent clients should be matched to therapists who concentrate on structures for organizing and containing overwhelming feelings.

4) Avoidant clients should be matched to longer term therapy, while Ambivalent clients should be matched to shorter term therapy.

Recommendation Strength: Weak

Attachment theory has historically been used mostly to describe the relationship of children (especially infants) to their parents. Not all attachment theorists believe that the same theory can be used to describe adult styles of relating. Interestingly, there are several studies of the results of matching clients and therapists based on the interactions of their attachment styles (Beutler & Consoli, 1992; Dozier, Kelly, & Barnett, 1994; Myer & Pilkonis, 2001). Most of these studies found some potentially useful effects based on dissimilarity of certain attachment styles. As discussed earlier, it was decided not to include any matching by personality similarity or dissimilarity in the matching system.

Only two references in the literature that had any relevance to matching therapy or therapist characteristics to client attachment styles could be found. One of these sets of recommendations was from Holmes(1997), who was one of the rare people who believed that therapists have their own styles, and some will be better than others at different methods. Therefore, his recommendations for different therapeutic aspects for different attachment styles are directly pertinent to matching attachment styles to different therapists. Unfortunately, Holmes matching suggestions are in the context of how to end psychoanalytic

psychotherapy (the subject of his paper), and are strictly theoretical, with no empirical support.

The second set of recommendations comes from Slade (1999). These recommendations are for therapists to modify their therapy based on clients attachment styles. They are also theoretical, without any empirical corroboration. Slade even cautions (p. 583) "Is attachment classification useful clinically? Thinking about attachment in terms of patterns overlaps in certain ways with more traditional ways of thinking about diagnosis; and, like diagnosis, it has both advantages and disadvantages in the clinical situation." Slade later suggests attachment could be most useful as a metaphor for clients experiences.

Client Ratings from Questionnaires

As described in Chapter 3, clients were assessed for Attachment style using the four statements on the Relationship Questionnaire by Bartholomew and Horowitz (1991). Then, using the complex formula also described earlier, clients were placed on a scale of Avoidance versus Ambivalence of +15 to -15. On this scale, for all clients and pilot testers, the mean was 1.00 with sd = 2.70. With such a small standard deviation, there was not as much useful information produced by this assessment as had been hoped.

In addition, there was a problem in interpretation of the attachment styles of the questionnaire in relation to the calculations, as described in Appendix E. Therefore, although the direction of the scores on this scale are correct, the exact amounts may be incorrect.

Therapist Ratings from Questionnaires

To assess therapists for the first matching recommendation, a question was created with exactly the same wording as the recommendation:

1) What is the general emotional style of your therapy? (1 = *My therapy tends to be warm, attuned, flexible, and empathetic*, 7 = *My therapy tends to be firm and consistent, with clear boundaries*) (Mean = 2.06, sd = 1.09).

The mean so close to the "warm, attuned" end, and the small standard deviation, indicate that all therapists rated themselves on this end of the spectrum. With so little differentiation among therapists, this was not a useful matching recommendation. It is probably true that almost all therapists do see themselves as warm, attuned, flexible, and

empathetic. However, therapists probably have more differences in how firm they are, and how concerned about clear boundaries. These therapy aspects do not seem to be opposites. Also, the matching recommendations were not opposites. This made all the assessments in this criterion extremely difficult. The only way to solve this problem in the therapists' questionnaires would be to assess therapists for each aspect of this description independently. That is, for example, therapists should be assessed for their concern about boundaries independently from anything else. In like manner, therapists should be assessed for how warm they are, independently from anything else. Of course, this creates the problem of exactly how to assess therapist warmth. Based on the results of this study, it is probable that a direct question would not work, as most therapists would see themselves as warm. The same problem would exist for "attuned," "flexible," and "empathetic."

For the second matching recommendation for attachment, to assess therapists for attunement and empathy, the same question as above was used. As was just discussed, this question did not produce useful results. To assess therapists for the amount of structure in their sessions, the same two questions used throughout the matching system were used (first discussed in the section on Level of Distress and Impairment):

2) To what degree is your usual method of therapy structured?

3) To what degree is what happens during your therapy planned?

As described above in that section, and also in the section on Resistance, there were a lot of problems in assessing ususal amount of structure in therapists' sessions. For the first part of the third matching recommendation, to assess therapists on their tendencies to help clients experience, or get more in touch with, their emotions, the following questions were used:

4) The help-way *an opportunity for deep experiencing and increased awareness of feelings and sensations*. (Order mean = 4.52, sd = 2.41; how-often mean = 2.45, sd = 1.15).

5)What is the general level of emotional intensity during your therapy sessions? (Mean = 5.03, sd = 1.05).

6) What level of intimacy usually occurs during your therapy? (Mean = 5.13, sd = 1.34)

It seems Question 4 was fairly useful, with the large standard deviation indicating a

good differentiation among therapists. The other two questions were not as useful, with fairly high means, and a fairly small standard deviations, especially on Question 6.

For the second part of the third matching recommendation, it was assumed that "structures for organizing and containing overwhelming feelings" was somewhat similar to therapy that had a lot of "structure," which would make this recommendation similar to the second part of the second recommendation.

For the fourth recommendation, therapists were assessed for tendencies for length of therapy with the previous assessment from Problem Complexity and Social Support above, *long-term-emphasis*. As described in that section, on a scale of -18 (shorter term) to +18 (longer term), the mean was 3.32 (sd = 7.10).

Interviews and Other Qualitative Information

The ratings of the 6 participant clients on the scale of -15 (ambivalence) to +15 (avoidance) were -5, -2, 1, 2, 2, and 4. The only ratings of even potential usefulness in this list are -5, which was for Linda, and 4, which was for Jane. Thus, according to this scale, Linda should have somewhat Ambivalent, and Jane should have been somewhat Avoidant. These characterizations seem pretty accurate. Linda was overly dependent on her mate. She was not able to take the questionnaire without her mate sitting in the same room with her. Jane did seem somewhat Avoidant. Although she described severe anxiety with panic attacks, she did seem to have muted affect, and seemed to keep an emotional distance from her mate. Thus the relatively extreme ratings at either end of the scale did seem to have some accuracy. This is not unexpected, since clients were putting descriptions of their emotional styles in order of applicability. However, it seemed as if the clients were a little confused by the four relatively lengthy narrative descriptions that they had to rate in their questionnaires. It seemed like these ratings required a lot of clear self-understanding, which would not necessarily be present in clients who were in highly emotional states. It seemed as if clients would have been less confused had the descriptions been separated into simpler components.

Session Assessments

There were five relevant questions in the session assessments:

1) How much structure did your session seem to have? r = 0.13 (0.11).

2) What was the level of emotional intimacy in the session? r = 0.54 (0.12).

3) What was the general emotional intensity of your session? r = 0.18 (0.12)

4) Did your therapist emphasize the benefits of short term therapy, or of long term therapy? r = 0.00 (0.12)

5) Did your therapy session seem to be simple or complex? r = -0.05 (-0.09).

Thus only the question on emotional intimacy showed any meaningful correlations, and only for Pearson's correlation, not for Spearman's correlation.

Conclusion

The conclusion for this criterion is that is should be deleted. The main problem is in client assessment. All matching recommendations were in terms of *avoidance* versus *ambivalence*. The Relationship Questionnaire, the instrument used for matching, does not transfer directly to this assessment, as explained in Appendix E. In addition, this instrument was confusing to clients. There are other possible more complete instruments, that would also be easier to understand (Crowell, Fraley, & Shaver, 1999, p. 451; Shaver & Fraley, 2003). However, all the new assessment instruments assess on the two dimensions of high avoidance versus low avoidance, and high anxiety versus low anxiety. This is not the same as avoidance versus ambivalence. This conflict between the dimensions of the matching recommendations and the dimensions of the assessment instruments makes matching extremely difficult. In addition, most of the adult attachment instruments are oriented toward romantic attachment.

Matching by attachment style still has some potential. Since the style of assessment now seems to be in terms of avoidance and anxiety, the main condition for trying this criterion again would be matching suggestions using these same dimensions. In addition, an instrument short enough to fit on one page of the client questionnaire would be needed. Attachment theory is an extremely complex and rich field, which is constantly undergoing changes, especially in the area of adult attachment, which is relatively new. Perhaps in the future the client assessment problems will be solved, and this criterion could be tried again.

Gunderson's Personality Dimensions

Matching Recommendations

There were four matching recommendations for this criterion:

1) Anxious clients should be matched to therapists who tend to be composed, contained, and stable, as opposed to frenetic and disorganized.

2) Hostile clients should be matched to therapists who are particularly comfortable with aggression.

3) Depressed clients should be matched to therapists who are comfortable with depression.

4) Clients with strong senses of failure should be matched to therapists who are not charismatic or extremely optimistic.

Recommendation Strength: Weak

The matching ideas came from one study by Gunderson (1978) on the effect on outcome of various personality matches between therapists and schizophrenic patients. The main strength of this study for matching purposes is that it produced specific matching suggestions between client and therapist characteristics. The main weaknesses are that this was a study of schizophrenic patients only, and that this was only one study that, as far as is known, has never been confirmed in any way. These suggestions were only included in this study for exploratory purposes, based solely on the fact that this was one of the rare studies found that had explicit client-therapist matching suggestions.

Client Ratings from Questionnaires

Clients were rated for anxiety solely on their results on the Brief Symptom Inventory (BSI) Anxiety scale. Since the BSI has only 18 questions, and thus only 6 questions related to anxiety, client anxiety was determined based on the answers to these 6 questions.

Clients were assessed for anger of hostility the same as in the section above titled "Findings from Project Match: Non-Confrontational Therapy for Angry Clients." As stated in that section, these assessments did not indicate a very useful range of anger or hostility among participant clients.

Clients were assessed for depression from their rating on the Depression scale of the BSI.

Clients' senses of failure were assessed through their answers to one question: How

do you feel about your success in life? (Mean = 3.62, sd = 1.76, 1 = *I am a successful person*, 7 = *I am a failure*).

All of these assessments seem to have produced fairly useful differentiations among clients.

Therapist Ratings from Questionnaires

Therapists being composed versus frenetic were assessed using one question with the exact wording in the recommendation, by asking therapists to place themselves on the scale of "I tend to be rather disorganized, and somewhat frenetic" versus "I tend to be composed, stable, organized, and contained." The mean was 4.74 (sd = 1.67). Thus almost all answers were between 3 and 6. Although this question seems to have a strong negative connotation on the side of disorganized and frenetic, it did produce a range of answers useable for differentiating among therapists.

Therapist comfort with aggression or hostility was assessed through only one question: How comfortable are you with hostile clients? (Mean = 4.06, sd = 1.67). This question seemed to produce a very useable differentiation among therapists.

Therapist comfort with depression was assessed through only one question: How comfortable are you with depressed clients? (Mean = 6.77, sd = 0.43). This was obviously a completely unuseable question, as every therapist answered either 6 or 7. Apparently all therapists are very comfortable with depressed clients.

Therapists' charisma would have best been assessed by someone other than the therapists. Not having this option, therapists were instead asked to rate themselves on the scale of "I am charismatic" versus "I am not charismatic" (Mean = 3.19, sd = 1.05). Thus almost all the therapists answered between 2 and 4. That is, almost all the therapists seemed to see themselves as fairly charismatic, thus not producing a very useful differentiation.

Therapists' optimism versus pessimism was assessed by asking therapists to rate themselves on the scale of "I tend to be pessimistic" versus "I tend to be optimistic" (Mean = 5.81, sd = 1.25). This was another useless question, as apparently all the therapists were extremely optimistic.

Interviews and Other Qualitative Information

The idea of matching anxious clients to therapists who are particularly composed received very strong support from the interview with therapist Sam, the cognitive-behavioral therapist who was matched with a client with anxiety and panic attacks. Sam described himself as having a particularly "calm style," and even worried if for some clients he "might be too composed." He said that he specialized in anxiety disorders, which he thought matched particularly well with his calm style. He said some clients might be better matched to a therapist who was more "effervescent and animated."

The interview with therapist Agatha had some information relevant to the wording of the assessment for therapists being composed. Agatha contrasted the style of a therapist she knows who is "extroverted" and "guiding" with her style, which is more "tolerant" and "hands-off." Since she thought her style would work for someone who was more reserved, it appears she was trying to express the same dichotomy as in the "composed" question.

As described in the section on Agreeableness in the Five-Factor Model of Personality, despite having some clients with moderately high ratings on anger, none of them remembered any instance when they were angry during their sessions.

Session Assessments

Unfortunately, there were no questions in the session assessments that could be used to produce correlations between *expectation-of-comfort* and *comfort* on therapists' comfort with anger or depression. The questions were whether therapists had been comfortable when clients were angry, and when they were depressed. No clients ever felt they were angry during the sessions. There was no obvious way to assess this criterion for client comfort, since it relates to therapist comfort. The idea was considered of asking clients if they were comfortable with the amount of comfort their therapists had, but this sounded too silly.

Thus the total sessions assessments for this criterion was one question for each of the other two suggestions:

1) During the session, was the therapist excited, agitated, disorganized, and confused or composed, stable, organized, and contained? r = -0.45 (0.36)

2) Was your therapist charismatic? r = -1.00 (-1.00)

The first question, related to client anxiety, had 8 answers. The second question,

related to client sense of failure, had only 3 answers, because only one client answered the questionnaire toward the direction of feeling like a failure.

Conclusion for Anxious Clients

It was concluded that the recommendation for matching anxious clients to composed and contained therapists should be retained. Although the correlations were mixed, and thus gave no strong support, the correspondence between the matching recommendation and the personal experiences of the therapist Sam make this an interesting enough idea to try again. In addition, there is some correspondence between this idea and the suggestion from the section on Level of Distress and Impairment that clients with high levels of distress and impairment should be matched to therapists whose treatments involve low levels of emotional intensity. (The conclusion was to retain this matching recommendation). The therapist assessment should be changed to test for therapists being "composed, contained, and stable" without contrasting this with "frenetic and disorganized." The words *frenetic* and *disorganized* not only have negative connotations, but also do not seem true opposites of *composed*, *contained*, and *stable*. *Composed* and *contained* are useful descriptions that do not seem to have any particular negative or positive connotations. The word *stable* is less helpful, as it seems to have a definite positive connotation. (Would a therapist admit readily to being unstable?). The self-description word used by therapist Sam, "calm," might also be helpful. That would make one side of the spectrum "calm, composed, and contained." The words suggested by Sam in his interview as opposites, "effervescent" and "animated," might be a good starting point for the other side of the spectrum. The word "extroverted" suggested by therapist Agatha in her interview might work also. It would be worthwhile trying this suggestion again with these therapist descriptions.

Conclusion for Hostile Clients

It was decided that the recommendation for matching hostile clients to therapists who are comfortable with aggression should be retained. On a simplistic level, it seems obvious that therapists who are uncomfortable with angry clients should not be matched with them. In terms of assessment of these qualities, even asking therapists only one question about this on the therapist questionnaire, there was a very useable differentiation among therapists. That

is, therapists expressed a spectrum of comfort with client hostility, with a mean almost exactly in the center between comfortable and uncomfortable. It would be worthwhile trying to fine tune this question, as the standard deviation wasn't very large. There was, however, a problem with assessment of client hostility, as there was a relatively small standard deviation. To make this matching recommendation better, and more testable, this assessment should be improved to obtain a wider spectrum of answers.

Conclusion for Depressed Clients

It was concluded that the recommendation for matching depressed clients to therapists who are comfortable with depression should be deleted. The ridiculously high mean of 6.77 on the question of therapist comfort with depression makes it impossible to match using this idea. It might very well be true that therapists are all very comfortable with depressed clients. There was not one single therapist out of the 31 who took the questionnaire who expressed any discomfort. It would seem that a therapist who was uncomfortable with depressed clients would not stay a therapist very long.

Conclusion for Clients with Senses of Failure

The conclusion is to delete the recommendation that clients with senses of failure be matched to therapists who are not charismatic of extremely optimistic. On their questionnaires, all therapists described themselves as fairly charismatic, and extremely optimistic. Charisma seems to not be a quality that can be easily self-rated. If there was a reasonable way of observer-rating therapist charisma, this idea would be interesting to try again, at least in terms of this particular trait. The trait of therapist optimism had such a strong mean toward optimism that it was useless for matching. It is likely that therapists by and large are optimistic, or they would not be able to remain as therapists. The correlation from the session assessments was not very useful, as it was based on only one client. However, it certainly did not hold out any hope, since it was a perfect negative correlation.

MATCHING BY CLIENT PREFERENCES FOR THERAPIST CHARACTERISTICS

Therapist Demographics

Client Questionnaires

Clients did express some definite preferences for therapists. Of the six participant clients, four expressed a preference for therapists sex, four for age, three for sexual orientation, two for therapist race, three for social or economic background, three for marital status, but only one for parental status.

Session Assessments

As described in the sub-section *other problems in session assessments* in the section "Successes and Problems in the Session Assessments" in Chapter 4, the demographic questions in the session assessments did not produce any useful information. Clients were either universally happy with therapist demographics, or they answered the questions in confusing ways.

Interview and Qualitative Information

Some clients were very concerned with certain types of demographic qualities of their therapists. For example, Linda specifically asked to see a female therapist. However, Linda also expressed preferences for many other therapist demographics. In her interview, Linda stated that her therapists never disclosed any personal information, so she did not know any of this non-obvious demographic information. However, she had decided that she actually preferred not knowing, because she wanted to keep some distance between herself and her therapist.

Conclusion

Despite the absence of supporting information from the session assessments, it still seems important to let clients have some input on the demographics of their therapists, so this section will be retained. At least half of the participant clients expressed preferences for all demographic areas except for race and parental status. It may be that clients were inhibited from expressing preferences for race because of fears of being considered prejudiced. Certainly race should not be left out of a list of preferences, since there was no opportunity to adequately test it. That is, there was no mis-match of client preferred race and therapist race. However, it does not seem that it would lessen the matching system in any way to delete preferences for parental status, especially since this was an area that clients could not assess without therapist disclosure.

Therefore, the conclusion is that all areas of client preferences for therapist demographics should be retained, with the possible exclusion of parental status.

Therapist Attitudes about Clients' Sexual Orientations

Client Ratings from Questionnaires

The client questionnaires asked three questions on this subject:

1) What would you like your therapist to think about sexual orientation as a problem for homosexual or bisexual clients? (1 = *Never a problem unless a client thinks it is a problem*, 7 = *Always a problem, even if a client isn't consciously aware of it*) (Mean = 1.54, sd = 1.33).

2) How comfortable would you like your therapist to be with homosexual and bisexual clients? (higher numbers = more comfortable) (Mean = 6.38, sd = 1.12).

3) How important is it that your therapist feels this way about homosexual and bisexual clients? (Scale = 1-5, lower numbers = more important) (Mean = 3.15, sd = 1.21).

As can be seen there was almost no variety in the answers. All clients wanted their therapists to think sexual orientation was not a problem for homosexual or bisexual clients, and all clients wanted their therapists to be very comfortable with homosexual clients. Almost all clients answered that it was moderately important that their therapists feel this way.

Therapist Ratings from Questionnaires

Therapists were asked two questions for matching with client preferences:

1) For homosexual or bisexual clients, how much of a problem do you consider their sexual orientation? (1 = *Only a problem to the extent clients thinks it is a problem*, 7 = *Always a problem, even if a client isn't consciously aware of it*) (Mean = 1.45, sd = 1.06).

2) How comfortable are you with homosexual and bisexual clients? (Higher numbers = more comfortable) (Mean = 6.68, sd = 0.70).

There is even less differentiation here than in the client answers. Apparently all therapists think exactly the way their clients wanted them to think about sexual orientation.

Session Assessments and Interviews

As far as can be determined, there was never a case where sexual orientation came up

as an issue in any way for any of the participant clients. The clients answered their session assessments about their comfort with their therapists' attitudes toward other peoples sexual orientation with either 6's or 7's, or with 4's. The ones who answered with 4's indicated in the interviews that they answered this way because they did not know how their therapists felt, because the issue never came up.

Conclusion

This was an interesting question, because everyone answered the same. This might be because of the social climate in the San Francisco Bay Area. These questions were included in the matching system because it seemed important to not send homosexual clients who thought their sexual orientation wasn't a problem to therapists who thought it was a problem, or who were uncomfortable with homosexual clients. However, there was not a single therapist out of 31 who admitted they thought homosexuality was a problem, or who admitted being in any way uncomfortable with homosexual clients.

In addition, all the participant clients, who were all heterosexual, expressed strong preferences for these liberal views of therapists, even though these views did not apply to them personally.

The conclusion is that this matching criterion should be deleted, at least for any version of the matching system being used in the San Francisco Bay Area. If a client had a specific request for a certain attitude of therapists relating to these issues, the therapists who were highly rated for that client could always be asked what their views were.

Therapist Religion and Spirituality

Client Ratings from Questionnaires

Clients were asked their preferences on four aspects of therapists' religion or spirituality. If they expressed a preference, they were asked them the importance of this preference, on a scale of 1-4, with higher numbers equaling more importance.

1) Religious or spiritual background. Of the six participant clients, only two expressed a preference in this area. Their ratings of importance were 3 and 4.

2) Current religious or spiritual practice. Four clients expressed preferences in this area. Their ratings of importance were 3, 3, 4, and 4.
3) Importance of religion or spirituality in therapist's life. All six clients expressed preferences in this area. Their ratings of importance were 2, 3, 3, 3, 3, and 4.
4) Religious or spiritual expertise. Three clients expressed preferences in this area. All rated the importance as 3.

Interviews and Other Qualitative Information

None of the participant clients indicated during their interviews that this was an important issue for them. However, there was one client who completed the questionnaire but decided not to participate in the study, for whom this are was of primary importance. In a conversation with him about his deciding not to participate (because he did not think he needed therapy), he said that his major criterion for picking a therapist would have been spiritual orientation.

When taking their questionnaires, clients were very confused about the question about therapists' religious background. They tended to answer it as if it referred to current practice, which was the next question. Every single client taking the test had to be told that the first question referred to history, and the second question referred to the present.

In his interview, therapist Sam gave some credence to the importance of religion in matching. Although he considered his client and himself to be extremely well matched, when asked in what way he was least well-matched to his client, the only area he mentioned was her religious beliefs.

In her interview, client Linda stated that she could not answer the questions about religion in the session assessments because she did not know what her therapist's religious or spiritual views were. She did not care, because this was not an important area for her. However, this does bring up the interesting point that the interaction of a therapist's religious or spiritual attitudes with a client's preferences would depend to some extent upon how much the therapist disclosed to the client.

Session Assessments

For the session assessments, clients were not only asked to rate their comfort with

their therapist's religious or spiritual attitudes, but also given the option of checking a box that they could not answer this question because their therapist did not disclose any of this information. Out of 18 sessions rated, in 13 the clients checked that they did not have enough information to answer. In the other 5 sessions, the clients answered with comfort levels of 6 or 7 (scale = 1-7). Because of this lack of data, no statistical analysis of this question was made.

Conclusion

Because of the confusion over the question about religious background, and because there seemed to be so little interest in this area compared to the interest in current religious practice, the conclusion is that this question should be deleted.

All the other questions had enough interest from clients that they are worth retaining. Also, there is strong support in the literature for including religious or spiritual issues in any matching program, as described in Chapter 2.

Assessing how effective matching is for this criterion would be worthwhile only for clients who expressed strong preferences. The participant clients had mild preferences only, so session assessments were not useful. Religious or spiritual issues would not come up in therapy for clients for whom these were not important issues. For clients for whom these issues were extremely important, they might discover their therapists attitudes on religion or spirituality very early in therapy. However, this might also depend on how much therapists disclose about their religious or spiritual attitudes. Perhaps this needs to be assessed in the therapist questionnaire as part of the assessment on religious and spiritual attitudes. It might also be interesting to ask clients how much they want their therapists to disclose.

Values

Matching

Therapists put the 18 terminal values of the Rokeach value scale (Rokeach, 1973) in boxes from most descriptive to least descriptive. Clients then did the same thing with these values, but for their ideal therapist.

Client Ratings from Questionnaires

Ideally, there would be a spectrum of ratings from clients. Any values that almost all clients liked or disliked would not be useful for matching. Some values met this criterion, and some did not. For example, on the order rating of 1-4, with 4 being highest, "Happiness" had a mean of 1.23 (sd = 0.44), "Wisdom" had a mean of 1.46 (sd = 0.78), "Self Respect" had a mean of 1.62 (sd = 0.77), and "Inner Harmony" had a mean of 1.77 (sd = 0.73). At the other extreme, "Salvation" and "National Security" each had means of 3.85 (sd = 0.38), and "Social Recognition" had a mean of 3.38 (sd = 0.87). Thus there was a very strong tendency for all clients to want therapists who valued happiness, wisdom, self-respect, and inner harmony, and did not value salvation, national security, and social recognition.

Thus, of the 18 values rated by clients, 7 were consistently rated high or low, so were not of much use for differentiating preferences.

Therapist Ratings from Questionnaires

Therapists also rated some values consistently high or low, although not as much as clients. "Mature Love" had a mean of 1.65 (sd = 0.84) and "Self Respect" had a mean of 1.68 (sd = 0.65). At the other extreme, "Salvation" had a mean of 3.97 (sd = 0.18), "National Security" had a mean of 3.68 (sd = 0.54), and "Social Recognition" had a mean of 3.45 (sd = 0.77).

Interviews and Other Qualitative Information

In her interview, Rose expressed particular happiness with her therapist Agatha's values, which she described as "she was really into the environment, she was really into being optimistic about the future, and people getting along , and peace, and stuff like that." Agatha also thought that this was a good match because of values, which she described as being open-minded to different cultures, different foods, and different ideas. Both this client and therapist thought the match was good because of the similarity of these values.

As will be described below in the section on Epistemological Style, therapist Carla felt she was particularly well matched with her client because of their similar artistic temperaments and interests. Although she remembered questions about art from the part of the questionnaire on Epistemological Style, her description of being well matched in artistic temperament seems to be more of a personality trait, or possibly a value of the importance of

art. A person could just be artistic, which would be a personality trait. Or, a person could have a true belief in the importance of creativity and art, which would be a value. It seems as if what therapist Carla is describing falls into the latter category, and thus is a value. This seems to give support to matching by preference for values, with two interesting qualifications. First, the importance of this area to people was not part of the Rokeach Value Survey used in this study. Second, what therapist Carla expressed was her preference for clients, not clients' preferences for therapists. The issue of therapist preferences will be discussed at the end of this chapter.

Session Assessments

One question was asked on the session assessments: how well the therapist's values matched the client's preferred values. The correlation between *expectation-of-comfort* and *comfort* for this question was r = 0.64 (0.64). This is a very high correlation, and very supportive of retaining this criterion.

Conclusion

The conclusion is that this matching system should be retained in principal, but a more appropriate list of values has to be made. 7 of the 18 values were not of much use, as all clients rated them with essentially the same preference. The Rose-Agatha client-therapist pair suggested completely different values which were important to them. Therapist Carla suggested the value of importance of creativity or artistic expression, which was not on the Rokeach scale.

The Rokeach value scale does not seem ideal of matching clients and therapists in the culture in which this matching system was used, which is the San Francisco Bay Area in 2004. It is usually better in assessments to use standard instruments that have been thoroughly tested. However, it seems it would be better for the matching system to update the Rokeach value list, or to find another list that is more appropriate, and has more variety in the answers for all the values. This plan is supported by the fact that Rose and Agatha felt they were well matched in large part because of similarity in values that were not part of the Rokeach list, and therapist Carla thought she was well matched to her client because of a value that was not on this scale.

Empathy Styles

Matching

Four different empathy styles were described in very short narratives. Therapists put these in order of usual emphasis, and then rated each on how often it was usually used. Clients put the same empathy types in order of their preferences, and then rated them as to how often they would like their therapists to use them. The client and therapist answers were compared, the they were matched accordingly.

Therapist Ratings from Questionnaires

The four empathy styles are described in Chapter 2. The styles are Cognitive, Affective, Sharing, and Nurturant. The therapist order ratings were from 1-4. The therapist ratings of how often used (the *how-often* ratings) were from *always* (1) to *rarely* (5). The therapists had the following statistics on these styles, in order of how much they used them:

1) Cognitive Order: mean = 1.65, sd = 0.71. How-often: mean = 1.32, sd = 0.48.
2) Nurturant Order: mean = 1.71, sd = 0.82. How-often: mean = 1.39, sd = 0.62.
3) Affective Order: mean = 3.10, sd = 0.65. How-often: mean = 3.77, sd = 0.99.
4) Sharing Order: mean = 3.55, sd = 0.81. How-often: mean = 4.10, sd = 1.01.

Obviously, this section of questions was not very useful for differentiating therapists. Therapists used the top two styles of empathy all the time, and almost never used the bottom two styles.

Client Ratings from Questionnaires

The statistics for client preferences on these empathy styles were:

1) Cognitive Order: mean = 1.23, sd = 0.44. How-often: mean = 1.54, sd = 0.66.
2) Nurturant Order: mean = 2.54, sd = 0.88. How-often: mean = 2.23, sd = 1.24.
3) Sharing Order: mean = 2.92, sd = 1.12. How-often: mean = 3.62, sd = 0.87.
4) Affective Order: mean = 3.31, sd = 0.75. How-often: mean = 3.69, sd = 1.03.

As for therapists, this section was not very useful for differentiating preferences. Clients always liked Cognitive empathy, and did not much like Sharing or Affective empathy. The only form of empathy that had some differentiation in response was Nurturant empathy.

Interviews and Other Qualitative Information

The wording of the descriptions of the empathy styles on the session assessments may have been confusing to clients. Since this is the same wording that was used in the questionnaires, this is an indication that this assessment system needs improvement. For example, on the question about how often the therapist tells of similar personal experience, client Jane marked that in her three sessions, the amount were 5, 6, and 6. Her therapist Sam marked that the amounts were 1, 2, and 2. When Jane was questioned in her interview about this discrepancy, it turned out that her therapist was giving her examples of other people, and Jane thought the words "personal experience" meant his experience as a therapist with other people. Jane had a similar problem for the empathy style of the therapist sharing the clients feelings. She confused this with the concept of the therapist understanding her feelings.

There was confirmation from the interviews that their therapist's empathy style is important to clients. Client Rose had previously been to a therapist whom she did not like. The reason she gave was that this previous therapist continually rephrased statements by Rose in ways that she found disagreeable. ("She'd say 'Oh, so you're feeling this and this and this.' 'No, I'm feeling exactly what I said I was feeling.'"). What Rose said she wanted was a type of empathic understanding which she wasn't getting. As another example, client Mel thought that the most helpful aspect of his therapy was that his therapist had "empathy for what I'm going through," which he further defined as "understanding" and "acceptance."

Session Assessments

As described in the section "Successes and Problems in the Session Assessments" in Chapter 4, the session assessments were not useful for correlation purposes, as participants answered in very confusing manners.

Conclusion

Empathy as a client preference matching criterion should be retained. Because of the narrow range of answers by both clients and therapists, this criterion has not been adequately tested to give any indication of its efficacy. This could be a very useful matching tool, if a way were found to truly assess therapists' styles. Therapists may have variety in how much they use different styles of empathy, but the four narrative descriptions in the therapist

questionnaire had either strong positive or negative connotations, and did not draw out what the styles really were. The same is true for client preferences. Perhaps a multi-item questionnaire could be developed, as opposed to four narrative descriptions. Perhaps there are subtle aspects of empathy styles that could also be assessed, such as the rephrasing of statements that client Rose complained about.

Epistemological Style

Matching

This was the one area in the matching program where clients and therapists were matched by similarity. As described in Chapter 3, clients and therapists were given a reduced version of the Psycho-Epistemological Profile (PEP) (Royce and Mos, 1980), and matched based on their similarity of answers.

Recommendation Strength: Very Weak

As explained in Chapter 3, even though a decision was made not to match clients on similarities, it was done in this case because no efficient method was found to match by clients' preferences for therapists' epistemological styles. This matching criterion was therefore included for purely exploratory purposes. It is the researcher's personal opinion that clients have a spectrum of comfort with different epistemological styles, and this criterion was included in an attempt to explore that idea.

Client and Therapist Ratings from Questionnaires

Both clients and therapists were given the reduced form of the PEP. For all clients and pilot testers, on scales of 0-10, the results were:

Empiricism: mean = 5.50, sd = 1.62

Metaphorism: mean = 5.83, sd = 0.90

Rationalism: mean = 5.83, sd = 1.11

For all therapists, the results were:

Empiricism: mean = 5.48, sd = 1.73

Metaphorism: mean = 7.90, sd = 1.27

Rationalism: mean = 5.52, sd = 1.41

It is interesting that therapists tended to be so high on Metaphorism, and clients had such a low standard deviation on Metaphorism. However, this information is not directly useful for the matching system.

Interviews and Other Qualitative Information

There was very strong support for this type of matching from the interview with therapist Carla. She felt she was particularly well matched with her client because of their similar artistic interests. She stated "I have a real belief that it's important to have some sort of art, music, something creative in your life." Her client was a musician, and "he would talk about his music, and I could really get it." She felt "that was a place that we instantly could connect" and that they were "really well matched" in that area. She remembered that her questionnaire had some questions about art, and thought her answers on these questions had something to do with how well matched she was with her client. The questions about art were all on the section on Epistemological Style. Carla's ratings for Epistemological Style were Empiricism = 5, Rationalism = 6, and Metaphorism = 8. Her client Ed's ratings were Empiricism = 6, Rationalism = 5, and Metaphorism = 9. Thus their ratings were extremely close to each other.

Session Assessments

The session assessments has one relevant question: how well the therapist's preferred ways of testing the truth of ideas matched the client's preferred ways. The correlation between *expectation-of-comfort* and *comfort* was Pearson's r = -0.08 (Spearman's r was not calculated). *Expectation-of-comfort* for this calculation was based on the correspondence between the answers on the therapist's and client's questionnaires.

Conclusion

The conclusion is that matching using the PEP should be deleted. It might be worthwhile to match clients with therapists who have epistemological styles that they are comfortable with. However, to do this in the preference section of the matching program, where it belongs, would require a method of describing epistemological styles in a way that clients could understand, and a way to match this to therapists' tendencies. If such a method

could be found, it would be very interesting to try matching by this method. Although the PEP did predict extremely well the excellence for match as described by therapist Carla in her interview, there is a problem in the exact meaning of this information. Therapist Carla felt she was well matched to client Ed because of similar artistic temperaments. The PEP does seem like it measures artistic temperament. There are several questions in this instrument that seem to relate to the importance of art to people. However, it is supposed to be measuring epistemological style, which is the method of determining the truth of ideas. Perhaps it measures both of these, but the epistemological style measurement is by correlation with the answers to the questions about importance about art. That is, perhaps people with artistic temperaments tend to rate high on Metaphorism. In any case, since what Carla liked would be more appropriately called a value than an epistemological style, her observations were probably more relevant to that section.

MATCHING BY CLIENT PREFERENCES FOR THERAPY CHARACTERISTICS

Therapy Length

Matching

Clients were assessed for their preference for the length of their therapy, and therapists were assessed for their preferences for how long their therapy lasts, and the two were matched accordingly

Therapist Ratings from Questionnaires

Therapists were rated for their preferences for therapy length with the questions: In general, how long do you think therapy should last?

1) Less than 10 sessions (mean = 3.61, sd = 1.09)
2) 10 - 20 sessions (mean =2.61, sd =1.12)
3) 20 - 50 sessions (mean =1.87, sd =0.85)
4) 50 - 100 sessions (mean =2.03, sd =0.91)
5) Over 100 sessions (mean =2.16, sd =1.19)

For each of these questions, therapists answered from *preferred length* (1) to *unacceptable length* (5). The means and standard deviations are for all therapists, including

pilot testers. As described above in the section on Problem Complexity and Social Support, when their answers to these five questions were combined, therapists had a useable differentiation. As can be seen from the individual statistics above, there is no pattern in therapists' answers, except for a disinclination toward therapy that last less than 10 sessions.

Client Ratings from Questionnaires

Clients were also asked "How long do you think your therapy should last":

1) Less than 10 sessions (mean = 1.92, sd = 1.26)
2) 10 - 20 sessions (mean = 2.62, sd = 1.19)
3) 20 - 50 sessions (mean = 3.23, sd = 1.17)
4) 50 - 100 sessions (mean = 4.00, sd = 1.08)
5) Over 100 sessions (mean = 4.38, sd = 1.19)

As can be seen, clients' answers followed a completely different pattern than therapists' answers. For clients there was a very strong pattern toward preferring fewer sessions.

Interviews and Other Qualitative Information

Client Jane said in her interview that she felt particularly well matched to her therapist because she wanted short term therapy, her therapist knew that, and was able to help her with short term therapy. This is the only positive support for this matching criterion. However, the researcher had a brief conversation with Jane 3-1/2 months after Jane's third session, in which Jane explained that she was still seeing her therapist every week, and was still extremely happy with her therapist and therapy and its positive results on her life. This is evidence that clients do not understand the benefits of longer term therapy, and tend to think they only want short term therapy, even though they may end up very happy with longer term therapy once they have some experience with it.

Other possibly relative qualitative information is that two clients were participating in this study primarily for curiosity, and knew ahead of time that they would only go to therapy for three sessions. This may have slightly skewed the results.

Session Assessments

One question was asked on the session assessments: "Did your therapist emphasize

the benefits of short term therapy, or long term therapy." The correlation between *expectation-of-comfort* and *comfort* for this question was r = -0.16 (0.02).

Conclusion

The conclusion is that matching by this preference criterion should be deleted. The correlations between *expectation-of-comfort* and *comfort* from the session assessments were discouraging. More important, the client preferences were so slanted toward short term therapy that all that would be accomplished by including this criterion would be to almost always select for therapists who emphasize short term treatments. It may be that clients usually do not know enough about psychotherapy to be able to make informed decisions about what length of therapy would be most helpful to them. Probably everyone if given a choice would prefer to have their problems solved as quickly as possible. Therefore, therapy length is not a good client preference criterion. There are other places in the matching program where it is more appropriate, e.g., Problem Complexity and Social Support.

Therapy Depth

Matching

Clients were asked their preferences for two therapy aspects that seemed to represent depth of therapy, and therapists were asked about the usual focus of their therapy for the same aspects. Clients were then matched to therapists based on the similarity of their preferences to the therapists usual focus.

Therapist Ratings from Questionnaires

Therapists' two questions for this criterion were:

1) How much does your therapy focus on alleviation of symptoms, vs. on depth (underlying causes of problems)? (1=symptoms, 7=depth) (Mean = 4.55, sd = 1.82)

2) To what degree do you have a narrow or wide focus during therapy? (1 = *I try to draw out and focus on a major aspect or theme of a problem*, 7 = *I focus on elaborating and appreciating the complexity of interactions of problems*). (Mean = 3.71, sd = 1.62).

These answers seem to produce a useable differentiation among therapists.

Client Ratings from Questionnaires

Clients' two questions for this criterion were analogous to the therapists' questions:
1) Would you prefer your therapist to focus directly on your symptoms, or on examining the underlying causes of your problems? (Mean = 5.08, sd = 1.61)
2) Would you prefer your therapy to have a narrow or wide focus? (Mean = 5.08, sd = 1.61)

Surprisingly, the mean and standard deviation for both these questions were identical. Both means were rather high, indicating either a slight preference by clients for depth, or a problem with the way the questions were worded.

Interviews and Other Qualitative Information

There was one client for whom the preference for immediate symptom relief as opposed to depth was very strong. This was Jane, who wanted immediate relief from anxiety and panic attacks. Jane answered the first question with "2," which is as far toward symptoms as anyone would be expected to answer, considering peoples' reluctance to answer at the extreme ends of any question. She answered the second question with "3," which is slightly higher than would have been expected, but still less than neutral. Jane's answer to the first question, and the closeness of the means of clients and therapists on this question, gives some indication that this question is worded correctly to assess therapy depth. However, the second question seems to draw out higher answers than would have been hoped. Perhaps the wording on this question needs some fine tuning.

There is some indication from the interview with therapist Carla that the assessment questions for depth need some revision. Therapist Carla and her client were extremely well matched for depth, with Carla practicing Existential therapy, which is extremely depth-oriented, and her client answering within one point of the highest possible rating on the assessment for preference for depth in the client questionnaire. However, when asked in what way she might not be well matched to her client, she answered "We were well matched in that he was interested in how things went, how to understand the process, but in terms of wanting to explore deeper, or a little more in depth, or ...some long term process, we weren't well matched." In other words, this therapist equated depth in part with length of therapy, and taking time to explore deeper. Her client was only there for the three sessions of the study, so in this respect, the therapist thought she would have preferred a client who wanted

more long-term therapy, and thus more depth. Therapist Carla also indicated she thought her client was the type of person who would be willing to work more in depth over time, to "sink his teeth into it," if he was "motivated by some sort of pain." This implies that distress can affect a client's desire for depth.

Session Assessments

There were two relevant questions on the session assessments:

1) Which did the therapist focus on: making your symptoms better, or examining the underlying causes of your problems? r = 0.37 (0.39).

2) Did your therapy seem to be simple or complex? r = 0.12 (0.15).

The relatively high correlation for the first question is encouraging. The lack of strong correlation on the second question could have several causes. It could be that matching on this aspect of depth wasn't effective. The small correlation could be because the question in the session assessments is worded slightly differently from the question in the questionnaires, and thus does not assess exactly the same therapy aspect. Finally, the small correlation could be a reflection of a problem in the wording of the criterion, as described above.

Conclusion

The conclusion is that this preference criterion should be retained. However, the wording of the second question in the questionnaires needs to be fine tuned. Then the second question should be retested, hopefully with a question in the session assessments that is worded the same. If after fine tuning, correlations are still negative on the second question, then it should be deleted, and one or more different questions to assess therapy depth added.

In addition, the interview with therapist Carla implies that the assessment of depth has to be expanded with another question or two that assess interest in depth over time. As explained in the section above about length of therapy, merely asking clients for their preference about therapy length did not work. Perhaps this type of information can be assessed instead through determining clients willingness to go deeper into exploration of themselves over time.

It is important to note that information about preference for depth may be relevant to

matching related to Distress and Impairment. One of the matching recommendations in that criterion was for more structure for clients with more distress and impairment. As was mentioned in the conclusion part of that section, it might be important to use clients preference for structure and depth to modify matching calculations based on Distress and Impairment. That is, if clients with a lot of distress and impairment express a preference for less structure and more depth, then perhaps they should not be matched to therapy that is more structured, regardless of the recommendations for that matching. Only the clients with a lot of distress and impairment who do not express a preference for less structure and more depth should be matched to therapy that is highly structured. This issue is discussed again in the section below on matching by preference for amount of structure.

Medication Attitudes

Matching

Clients and therapists were asked one question about their attitudes toward medication, and then matched according to how well their answers matched each other.

Therapist Ratings from Questionnaires

Therapists were asked one question:

1) What is your feeling about using psychopharmacology (medication) in conjunction with your therapy? (1 = *Medications are usually useful, and should probably be tried for most clients with serious problems*, 7 = *Medications should be used very sparingly, and only tried in the most extreme cases, or after most other methods have been unsuccessful*) (Mean = 3.48, sd = 1.59).

The mean is slightly toward medications being useful, which is understandable considering the influences in our culture at this time.

Client Ratings from Questionnaires

Clients were asked a similar question, except that the heading was “What would you like your therapist to think about using medications (drugs) in conjunction with therapy?” The mean was 4.38 (sd = 2.29).

It is surprising that the mean for clients was so high toward using medications very

sparingly. However, the extremely high standard deviation suggests that the mean was pushed higher by a few clients who were very against using drugs, and answered in a very high range. This is confirmed by the answers of the participant clients, which were 2, 3, 6, 7, 7, and 7. The clients who answered 2 and 3 were the two clients with severe distress and impairment. It makes sense that clients who were in a lot of distress would be more interested in medication than clients in very little distress. Answers might have been more toward the lower end (medications are useful) if all clients in the study really needed therapy, and were not participating merely for curiosity.

Session Assessments

The session assessments first asked clients if they discussed medications with their therapist. If they did, then the session assessments asked what their therapist's opinions were (approved or disapproved), and how comfortable the clients were with the therapists opinions. The correlations between *expectation-of-comfort* and *comfort* for this question were r = 0.63 (0.44). Although there were only 7 answers to this question (7 sessions in which medication was discussed), the high correlation is supportive of keeping this criterion.

Conclusion

The conclusion is that this criterion should be retained. There was a high correlation between *expectation-of-comfort* and *comfort*. Although this was based on very few sessions, it is still encouraging. There was a useable range of answers from therapists on their questionnaires. The range of answers from clients will probably be more useable once clients with more severe problems are the bulk of the clients using the system. Finally, the use of medications in conjunction with psychotherapy is such an important area that this aspect of matching should be retained for future research, even if the matching was not effective.

Matching Based on Preferred Characteristics of Therapy Systems

As described in Chapter 3, clients were matched to therapists based on clients preferences in four areas of therapy characteristics: subjects usually talked about in therapy, methods of helping clients, types of insight or understanding, and miscellaneous other therapy characteristics. Each of these areas of therapy characteristics will be discussed in

separate sections below.

Subjects Usually Talked About in Therapy ("Talk-Subjects")

Matching

Clients and therapists each divided 16 different possible subjects of discussion during therapy into four classes, from *most preferred* (scored as 1) to *least preferred* (scored as 4). Clients were matched to therapists for this criterion based on how much the orders of these talk-subjects matched each other. The list of talk-subjects can be seen in full on Page 6 of the Client Preference Questionnaire in Appendix B, and on Page 2 of the Therapist Questionnaire in Appendix A.

Therapist Ratings from Questionnaires

At the top of the page assessing therapists' order of talk-subjects, there was one question assessing how much they controlled subjects of discussion:

1) How much direction or control do you usually exert over what your clients discuss during therapy? (1 = *No direction or control; subjects of discussion are completely up to the client*, 7 = *Complete direction and control; I direct as much as possible what is discussed*) (Mean = 3.19, sd = 1.38).

The statistics for this question indicate that almost all therapists answered below 4 (the middle) for this question. This result lessens the value of this criterion, since almost all therapists thought they did not exert much control over what was discussed.

Most of the talk subjects had fairly useable distributions of answers. However, a few were answered so consistently low or high that they would need to be changed if this criterion were retained. The talk subjects that were rated highly (most preferred) by almost all therapists were:

1) Clients' emotions that are directly related to their problems. (Mean = 1.16, sd = 0.45)

2) Clients' current personal relationships. (Mean = 1.42, sd = 0.67)

3) Clients' thoughts that are directly related to their problems. (Mean = 1.55, sd = 0.89)

The talk subjects that were rated as least preferred by almost all therapists were:

1) Personal information about me that is relevant to clients' problems (self-disclosure).

(Mean = 3.61, sd = 0.62).

2) Clients' dreams. (Mean = 3.29, sd = 0.74).

3) Clients' early memories and fantasies (Mean = 3.26, sd = 0.82).

4) Religious and/or spiritual issues. (Mean = 3.13, sd = 0.96).

Thus, out of a list of 16 talk subjects, there were 7 that were not very helpful in differentiating therapists. Some of these items were unhelpful because it would make sense that they were often talked about, such as clients' emotions related to their problems, and clients' personal relationships. It was surprising that the talk subject of clients' thoughts related to their problems was rated so highly, as this was placed in this list in an attempt to separate out therapists who tended toward being cognitive. Obviously this attempt did not work, as almost all therapists rated it highly. At the other extreme, some of the items were unhelpful because they would only be talked about in special circumstances. Therefore, in the context of this list, they would in general get less emphasis, even though they might be considered important by therapists. For example, the talk subject of self-disclosure was put in the list in an attempt to differentiate therapists according to how much they used this technique. However, even therapists who use it a lot would still emphasize it less than most other items in the list, so this attempt did not work. In like manner, the talk subject of religious or spiritual issues was put in the list in an attempt to differentiate therapists according to how important they thought religious or spiritual issues were in the context of therapy. Again, this attempt did not work because even therapists who thought religious or spiritual issues were extremely important would only talk about these issues with clients who thought they were important, and thus in general these issues would get less emphasis than other issues.

Even though 7 talk subjects were not very useful for differentiating therapists, there still were 9 subjects remaining which seemed to work fairly well.

Client Ratings from Questionnaires

As with the therapists, there were a few talk subjects that were preferred by almost all clients, and thus were not useful for differentiating client preferences:

1) Discussions of ways for me to solve my problems. (Mean = 1.15, sd = 0.38).

2) Current personal relationships. (Mean = 1.31, sd = 0.63).

3) Insights into possible causes of my problems. (Mean = 1.38, sd = 0.65).

4) My thoughts that are directly related to my problems. (Mean = 1.54, sd = 0.52).

5) My emotions that are directly related to my problems. (Mean = 1.54, sd = 0.66).

The talk subjects that were least preferred by almost all clients were:

1) The therapy sessions and my relationship with my therapist. (Mean = 3.54, sd = 0.52).

2) Personal information about my therapist that is relevant to me and my problems. (Mean = 3.46, sd = 0.66).

3) My early memories and fantasies. (Mean = 3.31, sd = 0.83).

4) My health, physical symptoms, or bodily functions. (Mean = 3.23, sd = 0.83).

5) Religious and/or spiritual issues. (Mean = 3.23, sd = 0.93).

Thus, out of the list of 16 talk subjects, 10 were not very useful for differentiating client preferences, leaving only 6 at most that were useful.

It is interesting, although not particularly relevant to the present discussion, that clients were so interested in talking about ways to solve their problems, while this subject of discussion was more in the middle for therapists' emphasis (mean = 2.39).

Interviews and Other Qualitative Information

It was striking how confused therapists were while trying to complete this section of their questionnaires. Therapists who exerted little control over what was discussed in therapy did not know how to order a list of what talk subjects they emphasized, since they felt they did not emphasize different talk subjects. For the many therapists who had this problem, they were stuck until they were told something like "just order them according to what you wish clients would talk about, or what you think clients should talk about to be helped the most." This instruction always made sense to these therapists, who then had much less trouble. However, this makes the list different. It is no longer a list of talk subjects emphasized, but is now a list of subjects preferred. This means that in these cases clients are being matched by similarity of preferences with therapists for subjects of discussion.

Session Assessments

The session assessments asked whether clients talked about what they wanted to talk

about during the sessions, and how comfortable they were with what they talked about. The correlation between *expectation-of-comfort* and *comfort* was r = 0.11 (-0.02).

Conclusion

The conclusion is that this matching criterion should be deleted. First, therapists tended toward not directing or controlling what was discussed during therapy, so matching clients preferences for what is discussed to what therapists get clients to discuss will not work. Second, therapists were confused by this section, and many ended up rating the talk subjects by what they preferred the clients would discuss, which was not the intention for the list, and makes it less useful. Third, the subjects of discussions elicited ratings that were much too uniform, especially for clients. Although this problem could be overcome by deleting or changing items that were either uniformly preferred or not preferred, it adds some weight to the decision not to keep this criterion. Finally, the correlations between *expectation-of-comfort* and *comfort* were not supportive of this criterion.

The conclusion is that trying to differentiate therapists by their emphasis on subjects of discussion during therapy, and clients by their preferences for subjects of discussion, and then match them accordingly, was a noble try, but just did not work.

Methods of Helping Clients ("Help-Ways")

Matching

Therapists put a list of 7 possible ways of helping clients into order of their usual amount of emphasis, and then rated each help-way on how often they used it. Clients put the same list in order of preference, and then rated each help-way on how often they would like it used. Therefore, for each help-way, there is an *order* rating (range 1-7, 1 = highest rating) and a *how-often* rating (range 1-4, 1 = *always*, 5 = *rarely*). Clients were matched to therapists on how much their order ratings and how-often ratings coincided.

Client Ratings from Questionnaires

The client statistics for the seven help-ways were:.

1) Gain insight into, or understanding of, the causes of problems.

Order mean = 3.08 (sd = 1.80) How-often mean = 1.92 (sd = 1.04)

2) Develop new skills or learn new ways to behave in the outside world.

Order mean = 3.23 (sd = 2.05) How-often mean = 2.69 (sd = 1.18)

3) Opportunity for deep experiencing and increased awareness of feelings and sensations.

Order mean = 5.00 (sd = 1.83) How-often mean = 3.62 (sd = 1.26)

4) Immediate help to take specific actions as soon as possible to make symptoms better.

Order mean = 4.46 (sd = 2.47) How-often mean = 2.85 (sd = 1.46)

5) An opportunity to examine my life in a growth producing climate.

Order mean = 3.31 (sd = 1.84) How-often mean = 2.46 (sd = 1.33)

6) Learn new ways to think about problems in order to have more control over them.

Order mean = 3.69 (sd = 1.75) How-often mean = 2.31 (sd = 1.11)

7) Develop more hope that I can solve my problems.

Order mean = 5.23 (sd = 1.36) How-often mean = 2.69 (sd = 1.03)

The *order* statistics indicate that five of these help-ways were useful for differentiating client preferences, with means within one order rating of 4. However, two help-ways were not very useful. Help-way 3, about deep experiencing, may have been confusing to clients. Therapists, especially experiential therapists, would understand this term clearly, but clients with no psychology training probably have difficulty understanding exactly what it means. Help-way 7, about hope, was also not useful, but for a different reason. This help-way does not really belong in this list. Instilling hope in clients is probably more a function of everything a therapist does, rather than a specific emphasis. It may be that, even though clients wanted to have more hope, they intuitively knew that the their path to hope was through being helped in effective ways, not through merely receiving some hope. Even if therapy is effective primarily through instilling hope in clients (Snyder, Michael, & Cheavens, 1999), this probably needs to be done by making clients think they can be helped, not by just explicitly focusing on hope.

Therapist Ratings from Questionnaires

The therapist statistics for the seven help-ways were:

1) Gain insight into, or understanding of, the causes of problems.

Order mean = 3.29 (sd = 1.85) How-often mean = 1.81 (sd = 1.08)

2) Develop new skills or learn new ways to behave in the outside world.

Order mean = 3.84 (sd = 2.00) How-often mean = 1.97 (sd = 0.91)

3) Opportunity for deep experiencing and increased awareness of feelings and sensations.

Order mean = 4.52 (sd = 2.41) How-often mean = 2.45 (sd = 1.15)

4) Immediate help to take specific actions as soon as possible to make symptoms better.

Order mean = 4.65 (sd = 2.12) How-often mean = 2.52 (sd = 1.03)

5) [Clients] have an opportunity to examinetheir lives in a growth producing climate.

Order mean = 3.71 (sd = 2.08) How-often mean = 1.77 (sd = 1.12)

6) Learn new ways to think about problems in order to have more control over them.

Order mean = 3.61 (sd = 1.69) How-often mean = 1.77 (sd = 0.88)

7) [Clients] develop more hope that they can solve their problems.

Order mean = 4.39 (sd = 1.54) How-often mean = 1.65 (sd = 0.87)

The *order* statistics indicate that this list was useful for differentiating therapists. Every order mean was within one order level of the center (4). The *how-often* ratings were less useful. Every mean was very close to 2 ("Usually"). It was clear during pilot testing that therapists tended to answer by saying they used all of the help-ways very often. Therefore, an attempt was made to spread out the how-often scale in a positive direction, by removing the last choice, which was "never," and making the lowest rating "rarely." However, even after this change, therapists still all answered at the top end of the scale.

Session Assessments

As described in the section "Successes and Problems in the Session Assessments" in Chapter 4, assessment of client comfort on the help-ways had major problems, and could not be used for statistical analysis.

Another problem with the session assessments was in the ratings of *amounts* of the help-ways. Because the ratings of amounts were independent of each other, clients often tended to rate that there was a lot of all of them. For example, Jane, who was the client most happy with her therapy, rated the amounts of the 7 help-ways in her second session with three 6's and four 7's, and with all 6's for her third session. In the future, to make these amount ratings useful, it will probably be necessary to force clients and therapists to put the amounts

of use of the help-ways in order of how much they were used, as was done in the questionnaires, or find some other way of comparing their amount of use, rather than rating in on an absolute scale.

Conclusion

The conclusion is that this matching criterion should be retained. Although there was no way of testing its efficacy, there was enough variability from the questionnaires to make this a useful area for differentiating therapists and clients. However, there were two items on the list of help-ways that need changes. The item about hope should be removed, as it was not useful in differentiating client preferences, and probably does not belong on this particular list anyway. The item on deep experiencing needs to be reworded in such a way that clients understand what it means, and why they might like it. Finally, the list could be expanded slightly to include a few more items, since there will be more room in the questionnaire for ways to differentiate therapists according to the characteristics of their therapy systems after the criterion of subjects usually talked about is removed, as described above.

The *how-often* ratings were not as useful as the *order* ratings. Either the how-often ratings should be deleted, or the scale expanded more in a positive direction to produce more differentiation among therapists.

In future session assessments, amounts of help-ways should be determined by forcing study participants to put them in order of amount used, similarly to the method used in the questionnaires.

Ways to Understand Clients' Problems (Types of Insight or Understanding)

Matching

Therapists put a list of seven possible ways of insight or understanding of clients' problems into order of their usual amount of emphasis. Clients put the same list in order of preference. Each insight type had an order rating of from 1 to 7, with 1 being the highest rating (most emphasized or preferred). Clients were matched to therapists on how much their orders coincided with each other.

Therapist Ratings from Questionnaires

The therapist statistics for the seven insight types were:

1) Insight into their unconscious thoughts, feelings, and/or instincts.
   Mean = 4.00, sd = 2.16
2) Insight into how their personalities have been determined by early relationships.
   Mean = 4.35, sd = 2.09
3) More understanding of their interactions with other people.
   Mean = 3.03, sd = 1.45
4) More understanding of how patterns of behavior contribute to problems.
   Mean = 3.16, sd = 1.81
5) More understanding of how negative patterns of thoughts contribute to problems.
   Mean = 3.90, sd = 2.20
6) More understanding of the complex interactions within their families.
   Mean = 5.03, sd = 1.64
7) More recognition and understanding of repetition of historical events in the present.
   Mean = 4.52, sd = 1.95

For therapists, every mean was within one rating point of the center (4) except Insight 6 about families. All these items were meant to differentiate different types of therapy, without using therapy names. For example, Insight 4 was intended to elicit tendencies toward using behavioral interventions, and Insight 5 was intended to elicit tendencies toward cognitive therapy. Insight 6 was intended to elicit tendencies of therapists to use family therapy, but this did not really work because therapists would use family therapy with families, and not see therapy with individuals through this lens.

There were a couple other Insights that might need rewording. Insight 3, which was intended to elicit tendencies toward interpersonal therapy, apparently was attractive to all therapists. The wording was probably too general, and not specific enough to that therapy style. The same problem exists for Insight 4, which seemed to appeal to many therapists besides therapists who emphasized behavioral interventions. Although it would be easy to reword these two items to make them more narrowly applicable, this would have to be done

without their becoming less understandable by clients.

Client Ratings from Questionnaires

The client statistics for the seven insight types were:

1) Insight into my unconscious thoughts, feelings, and/or instincts.
   Mean = 3.85, sd = 2.08
2) Insight into how my personality has been determined by early relationships.
   Mean = 4.77, sd = 1.74
3) More understanding of my interactions with other people.
   Mean = 2.77, sd = 1.30
4) More understanding how my patterns of behavior contribute to my problems.
   Mean = 2.77, sd = 2.17
5) More understanding of how negative patterns of thoughts contribute to my problems.
   Mean = 4.00, sd = 1.73
6) More understanding of the complex interactions within my family.
   Mean = 5.23, sd = 2.05
7) Recognition and understanding of my repetition of historical events in the present.
   Mean = 2.46, sd = 0.78

These ratings were not as effective as the ratings for therapists. Three of them, Insights 3, 4, and 7, were consistently liked. Insight 6, about family therapy, was consistently not liked. The wording on these definitely needs some work. It is extremely important that clients' preferences be well differentiated on these items. If clients consistently like several types of Insight, then any therapists who rated those types highly would be matched highly with many clients on this criterion, and therapists who rate those items lower will be matched with very few clients. The point of the matching system is to spread out the matches among therapists, not find a few therapists who match very well with all clients.

Session Assessments

On the session assessments, the relevant questions were in terms of therapists' opinions of the probable causes of problems, but in addition all seven of the insight types were listed on the client assessment forms so clients would understand what was being asked.

The correlation between *expectation-of-comfort* and *comfort* was r = 0.53 (0.47).

Conclusion

The conclusion is that this criterion should be retained. It is important to give clients some method of expressing preferences for types of therapy, and this is one of the two primary methods left after subjects of discussion are deleted. The correlations between *expectation-of-comfort* and *comfort* were supportive of keeping this criterion. The item about family therapy should be removed. The three items that were consistently highly rated by clients should be reworded to try to get more of a spread of ratings. Possibly a few more items could be added, since there will be extra room in the questionnaire after deleting the entire section on subjects usually talked about.

Other Therapy Characteristics

Matching

This was a catch-all category to hold a few miscellaneous therapist or therapy characteristics that could be used for matching by client preference, most of which had already been answered by therapists for matching on other criteria. There were eight items in this criterion. For each of the eight, therapists rated themselves, and clients expressed preferences. clients were matched to therapists on how much their answers coincided with each other.

Therapist Ratings from Questionnaires

The eight therapist questions were:

1) How often do you use humor during therapy sessions? (Mean = 6.03, sd = 1.14).

2) What level of intimacy usually occurs during your therapy? (Mean = 5.13, sd = 1.34)

3) To what degree is your usual method of therapy structured? (Mean = 3.26, sd = 1.57)

4) To what extent is your therapy under your control, vs. collaborative with your clients? (Mean = 5.65, sd = 1.31) (Higher numbers = more collaborative).

5) How standardized are your usual methods of therapy? (Mean = 4.55, sd = 1.73, 1 = *I follow standard methods and techniques that have consistently worked well*, 7 = *I create novel interventions as needed*).

6) To what degree do you focus on acceptance of problems vs. overcoming problems? (Mean = 5.13, sd = 1.41, 1 = *I focus on clients learning ways to accept their problems and live with them*, 7 = *I focus on clients learning ways to overcome their problems*).
7) To what degree is what happens during your therapy planned? (Mean = 2.71, sd = 1.32)
8) How directive are you with clients during therapy? (Mean = 4.30, sd = 1.38)

As can be seen, some of these questions were useful for differentiating therapists, and some were not useful. Question 1, about humor, was not at all useful, as all therapists seem to think that they use humor very often. Question 2, about intimacy, was also not very useful (although not as bad as the question about humor), as it seems that all therapists think they have more than average intimacy with their clients. Question 3, about structure, was discussed earlier in the section on Resistance. From the mean and standard deviation, however, it does seem somewhat useful. Question 4, about therapy being collaborative, was not very useful, again with all therapists believing that they were collaborative. Question 5, about using standard or novel techniques, was fairly useful, with answers tending at least somewhat toward the center, and a larger standard deviation than any of the other questions in this section. Question 6, about accepting or overcoming problems, was not very useful, as all therapists seem to focus on overcoming problems. Question 7, about therapy being planned, was not useful, as all therapists seem to think they are flexible and do not follow treatment plans. Question 8, about directiveness in therapy, was useful, with the mean being closer to the center than for any of the other questions in this section. However, the standard deviation was not very large, which means that almost all therapists answered close to the center.

If it is arbitrarily decided that a question is considered useful for differentiating therapists if the mean is within one point of the center, that is, the mean is between 3 and 5, then three of these questions were useful, and five were not useful. The questions that were not useful merely need to be rewritten so that answers are spread out more, and the means are closer to the center. For example, for the question with the most one sided response, humor, the lower end could be changed from “I almost never use humor” to “I use humor a moderate amount.” Then therapists would be rating their use of humor on a scale from moderate to

very often. The upper end of the scale could also be changed to reflect a higher amount of use of humor than "very often."

Client Ratings from Questionnaires

The eight client questions were:

1) How often would you like your therapist to use humor during therapy sessions? (Mean = 5.77, sd = 1.01)

2) What level of intimacy with your therapist would you prefer? (Mean = 5.15, sd = 1.21)

3) What amount of structure would you prefer in your therapy? (Mean = 3.62, sd = 1.12)

4) To what extent would you like your therapist to think of therapy as a collaboration with you? (Mean = 4.85, sd = 1.99, 1 = *My therapist should consider me as a non-expert, being helped during therapy by an expert therapist*, 7 = *My therapist should consider me as an equal expert, with us working collaboratively during my therapy*).

5) Would you prefer your therapist to use standard methods, or to create novel methods? (Mean = 4.85, sd = 1.34, 1 = *Follow standard methods that have consistently worked well in the past*, 7 = *Create novel methods of therapy, when the therapist feels they are needed*).

6) Would you like your therapy to focus on acceptance of problems, or on overcoming problems? (Mean = 5.46, sd = 1.56, 1 = *I would like to focus on learning ways to accept my problems and live with them*, 7 = *I would like to focus on learning ways to overcome my problems*).

7) Would you prefer your therapist to plan your sessions ahead, or to be flexible? (Mean = 4.69, sd = 1.70, 1 = *Be very organized, and have a specific plan for my therapy sessions*, 7 = *Be extremely flexible, and not plan where my therapy is going ahead of time*).

8) How directive would you like your therapist to be? (Mean = 4.69, sd = 1.11)

These questions were better at differentiating client preferences than the therapist questions were at differentiating therapists. Three questions were not useful: humor, intimacy, and acceptance versus overcoming problems. It seems all clients want a lot of humor and intimacy, at least based on the way these questions were asked. They also want their problems overcome.

Interviews and Other Qualitative Information

Matching on preference for therapist directiveness and collaborativeness had some support from the interview with client Rose. What she liked best about her therapist was the she was a "team player" who was on her side and trying to help her, without being "judgmental" or telling her what to do. Matching for preference for therapist directiveness also gets some support from the interview with therapist Sam, who suggested that his style of therapy, which is very directive, worked very well with his client Jane, because she was not very assertive, and did not give feedback about what she was getting, or what she might want that she was not getting. Jane's preference for therapist directiveness was 5 (scale 1-7, higher numbers = more directive). Thus her preference seems to match her therapist Sam's self assessment.

Matching according the therapists' emphasizing accepting or overcoming problems was not supported in the interview with client Rose. She described a problem that her therapist suggested was not so bad, but also gave her suggestions to overcome. Rose liked the combination of these two ideas: that she could accept her problem, but still keep trying to overcome it. This suggests that the ideas of accepting problems and learning to live with them and trying to overcome them are not true dichotomies. A client could accept a problem and try to learn to live with it while trying to overcome it, both at the same time. That is, human beings are complicated enough to be able to try two things at the same time in their lives.

Matching according to preference for structure was supported by the interview with client Ed, who particularly liked the absence of structure in his sessions.

Session Assessments

Considering the problems on so many questions on the questionnaires, as described above, it was surprising that there were some supportive results from the session assessments. There were six relevant questions on the session assessments:

1) How often did the therapist use humor during the session? r = 0.28 (0.36).

2) The level of intimacy between client and therapist during the session. r = 0.55 (0.24).

3) Amount of structure in the session. r = 0.05 (0.15).

4) Did the therapist act like an expert (guide and instruct client), or as an equal (session was

collaborative). r = 0.31 (0.36).

5) Did the therapist emphasize accepting problems, or overcoming them? r = 0.23 (0.25).

6) Who directed or controlled the session, the therapist or the client? r = -0.25 (-0.34).

Conclusion

The relatively high correlations on some of these items gives support for retaining matching by client preference on miscellaneous aspects of therapy.

The question about humor was not useful as written. The probable reason for the relative high positive correlations from the session assessments on this item is that all therapists and clients were automatically well matched on it, and tended to answer the session assessment in a positive way. This might be a very hard question to assess in sessions, as it would be unusual for a client to be unhappy with the amount of humor used in a session. However, this just means that assessment questions have to be more indirect. It is interesting to note that, from the session assessments, the mean for *amounts* of humor used by therapists during sessions was client ratings = 4.11 (sd = 1.75), and therapist ratings = 4.94 (sd = 1.47). Thus therapists did not use humor as much as they thought when they took their questionnaires. The client rating mean extremely close to the center, with a fairly high standard deviation, is a strong indication that there is differentiation among therapists in the use of humor. Because of this, it would be worthwhile to try matching on this question again, with the question reworded to get a wider range of responses, with means more toward the center, as described above.

The question on intimacy also was not useful as written. Both therapists and clients answered their questionnaires slanted very strongly toward very high levels of intimacy, and so were automatically well matched with each other. As with humor, this could be the reason for the high correlations. Also similarly to humor, the means of the ratings for amounts of intimacy in the sessions was client ratings = 3.94 (sd = 1.35) and therapist ratings = 4.28 (sd = 1.23). Thus therapists and clients thought there was a lot less intimacy than would have been predicted from the therapist questionnaires. As for humor, these ratings indicate that there is enough differentiation among therapists on this quality that it is worth trying this question again, with the wording improved.

The question about the amount of structure in sessions either needs to have the wording changed, or possibly be expanded into two questions. As discussed above in the section on Resistance, the meaning of the word "structure" isn't clear enough to work well for matching. Although the correlations in the session assessments were not supportive of this matching, the interview with Ed indicated it could be important for some clients. Assessing clients' preferences for amount of structure is important for matching based on the recommendations in the section on Distress and Impairment, where it was proposed in the conclusion section that clients with high levels of distress and impairment be matched to highly structured therapy as recommended only if they do not express a preference for therapy with less structure and more depth. To accomplish this, it would obviously be necessary to assess clients' preferences for the amount of structure in therapy. Since determining the usual amount of structure in therapy is part of several different matching recommendations, therapists would be assessed on this quality anyway. Therefore, with all this information available in any case, this matching criterion should be retained.

The question about therapists being experts or equals fall into the same class as humor and intimacy above. All therapists view themselves as equals who collaborate, and all clients want that. The correlations for the sessions were high, probably for the reasons given above for humor and intimacy. Similarly to humor and intimacy, the means of the ratings for amounts therapists acted as equals in the sessions was client ratings = 4.44 (sd = 2.04) and therapist ratings = 4.89 (sd = 1.41). These ratings were closer to the middle, with more variation, than would have been expected from the therapist questionnaires. As with humor and intimacy, it therefore seems worthwhile to try to rewrite this question to produce client and therapist answers toward the middle, with larger differentiations.

The question about acceptance of problems versus overcoming problems was in this list because it was already being used for therapists for the criterion Clients' Perceptions of Reality. In the conclusion section for that criterion (see above), it was concluded that this question should be deleted. All clients wanted therapists to focus on overcoming problems, and all therapists thought that was what they did. As with several other items described above, a possible reason for the relative high positive correlation on this item is that all

therapists and clients were automatically well matched on it, and also happy that the therapists focused on overcoming problems. Unlike the other three items above in this category, this item did not have ratings of amounts that supported the idea that there was therapist differentiation that was hidden by the wording. The means of the ratings for *amounts* therapists emphasized overcoming problems was client ratings = 5.11 (sd = 1.78) and therapist ratings = 5.44 (sd = 1.25). In addition, the interview with client Rose indicated that this question may not describe a true dichotomy. The conclusion from all of these factors is that this question is not useful, and should be deleted.

The question about who directed the session had very good ranges from the therapist and client questionnaires, but very disappointing correlations from the session assessments. If these correlations were relied on, this question would be deleted. It is strange that this question had negative correlations. This would imply that the more clients wanted direction, the less direction they should be given, and vice versa. It makes more sense that clients would be most comfortable with therapists who matched them on this criterion. This is supported by the interviews. Perhaps the negative correlation is an anomaly due to the small size of the sample. In any case, this question must be retained on the therapist questionnaire, due to many other criteria that are based in part on therapist directiveness. Therefore, the conclusion is to keep a client preference question on direction of the sessions in the client questionnaire, but use it only for future assessment of the efficacy of matching using it, not actually do any matching using it. Then this question can be reassessed using more data.

Finally, several other questions might be added to this "other therapy characteristics" section, depending on what questions are added to the therapist questionnaire for which clients could then be asked their preferences.

MATCHING SYSTEM IMPROVEMENTS: INFORMATION FROM INTERVIEWS

In her interview, client Rose indicated that she was particularly comfortable with her therapist Agatha because they had similar attitudes about subjects such as astrology and the usefulness of understanding people through body types. This suggests a possible client

preference area, but the exact definition needs more exploration. In the current culture in the San Francisco Bay Area, beliefs in areas such as astrology or other so-called "new age" beliefs may have elements of religion, as some people seem to have these beliefs from faith alone. However, there also seem to be elements that may be social and political. In addition, any type of belief could be analyzed in terms of epistemological style. For example, the beliefs described in this paragraph could be a result of the *metaphorical* style described in the Psycho-Epistemological Profile (see Chapter 2), which analyzed truth by focusing on symbols and metaphoric experiences. Looked at in these terms, it is interesting that both Rose and Agatha had the metaphorical style as the highest rated of the three styles. As discussed above in the section on epistemological styles, if a method can be found for clients to express preferences on these styles, then this will be added to the matching system. As to other matching based on beliefs similar to those described above, this matching should be added as soon as a method of determining client preferences is found.

In her interview, client Rose also stated she liked her similarity with her therapist on her style of working very intensely on something, and then taking time off and not working at all. Rose's therapist Agatha, when asked what was most helpful in the therapy sessions, answered by describing two similarities. The first was the similarity that she and her client had both moved around a lot. The second was that they were both "open to different countries and cultures." This information supports the idea that similarity can be a good matching tool. The major problem is finding the similarity that is important to the client, that the client wants. That is what was attempted in the matching system with preferences. That is, it was assumed that if clients want a similarity in an area in which they are allowed to express a preference, then they will assert that preference. If this is true, then the question becomes how to assess for client preferences in the areas indicated as important by the interviews. The idea of being open to different countries or cultures might be a helpful element to add to preferences, if a way could be found to add it.

An interesting area to allow clients to express a preference is suggested from the interview with Agatha. She compared the style of a therapist she knows who is "extroverted" and "guiding" with her style, which is more "tolerant" and "hands-off." She thought her style

would work for someone who was more reserved. This quality is similar to the quality discussed in the section on Gunderson's Personality Dimensions for matching anxious clients to composed and contained therapists. In that section, it was concluded that the original question on this dimension should tentatively have the wording modified to contrast "calm, composed, and contained" to "extroverted, animated, and effervescent." Since therapists would already be asked to rate themselves on this dimension, clients could easily also be asked to rate their preferences using the same wording. Then clients could make their own decisions, rather than assuming that more reserved clients would want more reserved therapists.

This type of matching is confirmed by the interview with therapist Wendy, who worried that she might have come on too strong with her client "energy-wise." Having high energy would be similar to being extroverted, animated, and effervescent. It was also confirmed in the interview with client Mel, who said he particularly liked his therapist better than the previous one he had seen because his present therapist was more "outgoing."

Another preference area was suggested by the interview with therapist Agatha. Agatha thought she and her client were particularly well matched because they both thought and talked quickly. She stated "our talking speeds were a good match." She also suggested the concept of "tempo of session" as reflective of this type of quality. This suggests asking therapists if they like to think things out carefully before they say anything, and have a moderate tempo in their sessions, or if instead they prefer to think fast, talk fast, and have a quicker tempo in their sessions. Clients could then be asked for their preferences on these qualities.

When asked in her interview about clients with whom she has not been well matched, Agatha described "the ones who are not articulate, the ones who visualize but don't speak very much, because I don't visualize very well. I think in language, not in pictures." At fist glance, this may seem like a useful dichotomy. However, it is probable that most talk therapists are extremely comfortable with language, so this would not produce a useful differentiation among therapists.

Agatha also described another type of client she doesn't match well with as people

who believe that power struggles are necessary, e.g., that war and divorce are necessary. Agatha described these people as “realists.” She described herself, in contrast, as an “idealist” who believes in “peace,”“ harmony,” and “understanding.” This dichotomy seems to be an excellent candidate for testing as a client preference dimension.

Therapist Ida said she thought she was a good therapist for her client Mel because she has “a gentle style that makes him feel comfortable.” Mel had a gentle style that was very distinct and noticeable from just interacting with him when he was taking his questionnaire. This type of personal description does seem as if it would be a good candidate for a client preference. There was a relevant question is the therapist questionnaire, of whether therapy was warm, attuned, flexible, and empathetic or firm and consistent, with clear boundaries. Unfortunately, all therapists answered this question strongly toward the warm and attuned end, with a mean = 2.06 (sd = 1.09), so it was not useful for differentiating them. Another question that might have been useful was whether therapists were tender minded or tough minded, a dichotomy suggested by William James (1975, p. 13). However, this differentiated therapists just as badly, with all therapists answering that they were almost completely tender minded (mean = 5.71, sd = 1.19). It does seem as if therapists would have a differentiation on the scale of how gentle their styles are, and also have some differentiation on dimensions similar to those described in the two questions above. For the next version of the matching program, these two questions should be reworded to produce better differentiation among therapists. If a method of assessing gentleness of manner can be found, this should be added also.

Another potential area of interest that wasn’t included in the matching program was an assessment of what therapists thought they did best, and matching this with client preferences. This was suggested from the interview with therapist Ida, who thought that what she did best with clients was to “look at things from different angles” or “different perspectives” in order to “open [things] up.” This suggests that perhaps all therapists have opinions from their experience of what they do best and what they do least well. A helpful addition to the matching system could be a list of possible strengths and weaknesses that therapists could put in order, and which could be used for clients to express preferences.

In her interview, client Linda stated that she did not know anything about her therapist's personal life, and she did not want to know anything about her life. This suggests that some clients might want to know about their therapists' personal lives, and some would prefer not to know. In addition, it is probable that there is a spectrum of how much therapists tend to disclose about their personal lives. It would be interesting to try matching clients and therapists on these qualities.

In her interview, client Linda also stated that she liked her therapist in part because they both had similar body types. This may be idiosyncratic to Linda, or it may be that other clients would have preferences for body types of therapists. This should be researched more, and then added to client preferences if appropriate.

A final area that emerged from the interviews was that therapists do have preferences for different types of clients. The idea of matching in part according to therapist preferences is a fascinating idea that was not tested at all in this matching system. It would be worthwhile to try to create a list of therapist preferences that would produce differentiation among both clients and therapists, and add this to the next version of the matching system.

CHAPTER 6: DISCUSSION

DELIMITATIONS

The major delimitation of this study is that it was an exploratory case study, and all the statistics used in this study had very low power. As described in Chapter 5, although the idea of calculating correlations between expectation and comfort was suggested in the proposal for this project, the actual methods of calculating these statistics were determined post hoc. In addition, analyzing the statistics for the answers to the questionnaires was a post hoc calculation, as this was not considered until after the data was all available. As discussed in Chapter 5, there were problems with some of the data from the session assessments, so that several areas of assessment were not useful. Some of the data from the study were qualitative, based only on the researcher's analysis of the information, with no additional method of validation. All the conclusions in Chapter 5 are based solely on the researcher's opinion, which is based on a subjective interpretation of the combination of information from the various sources, including the session assessments, the questionnaires, and the interviews. There was no method of proof of any of these interpretations of the data. However, since the purpose of this study was exploration, not proof, this is not necessarily bad. It is merely important to make clear that this study did not prove anything, or statistically validate anything.

Although it was suggested in the proposal for this study that the effectiveness of the matching system might be established through the correlation of expectation of comfort with comfort for all matching criteria combined, this method did not work, as explained in Chapter 5. In spite of this, the matching system appears to have been a success in many ways, as will be explained in the next section.

Because this was a case study, results were deep rather than broad. A traditional two group experimental design, where one group of clients was randomly matched to therapists, and another group was matched using the matching system, might have more successfully answered the simple question of the extent to which this matching system was better than chance. Although this question was not answered in this study, a lot of very useful information was obtained about how this matching system affected each of the participant

clients, and how the many matching recommendations could be improved.

The study of this matching system was carried out in the very liberal San Francisco Bay Area, and specifically in Marin County, which is a particularly liberal area. Some of the conclusions may have been affected by this fact. The resulting improvements to the matching system based on the conclusions from this study may produce a matching system that works well in a very liberal area, but is missing elements that would make it work better in a more conservative area. For example, although it was concluded that questions about therapists' attitudes toward clients' sexual orientations should be deleted in the Bay Area, it may turn out that these questions would be useful for matching in other parts of the country.

ACCOMPLISHMENTS OF THIS PROJECT

There were four major accomplishments from this project. First, a computer matching system based on psychotherapy research was created. This was no small accomplishment. At the beginning of the project, it was not certain that this could be done. As discussed in the previous chapters, selecting the matching criteria and combining them into a computer program that matched clients with therapists was a difficult and time consuming effort. There were many times that it did not work, and there was never any certainty that it would work, until it was finished and ready for the actual study.

The second major accomplishment was matching clients to therapists using this program. This showed that such a matching could be done. Therapists were able to complete their questionnaires and have their data put into the database. Enough therapists were willing to participate to create a useable database. Clients were able to complete their questionnaires and be matched to therapists. The clients then went to the therapists and participated in psychotherapy. Thus, the matching system functioned fully as intended.

The third major accomplishment was that the matching system seemed to be accepted by therapists, and seemed to help clients. The reactions of therapists, who were eager to participate, showed that such a matching program could be accepted by the therapeutic community. Until therapists started agreeing to participate, it was definitely possible that therapists would find this system unacceptable, and no participant therapists found. At the

end of the study, there were 27 participant therapists in the therapist database, and many more were turned down because there were already enough for the study. The reactions of clients showed that clients liked being matched to therapists using this system. As a matter of fact, they liked being matched using the matching system more than it probably deserved. As previously described, they expected to be very well matched with therapists, even in ways that the system didn't match them (e.g., personality similarity). Clients seemed very eager to participate, and three clients were particularly happy with the existence of this study because they wanted to see therapists and didn't know how to find appropriate therapists. Although these three clients represent a statistically insignificant sample, this is at least some indication that there may be many potential therapy clients who have trouble taking the step of going to a therapist because they don't know whom to go to. A matching system such as the one created in this project has the potential to help these people.

The fourth major accomplishment was that a study of the matching system was carried out that produced useful results for the improvement of the matching system. It was always maintained by the researcher that this was a very rudimentary first attempt at a matching system. It was never suggested that this would be a great system resting on a firm foundation of thorough and accepted research that would work smoothly with all aspects well integrated. On the contrary, it was expected that there would be a large spectrum of how well various parts of the system worked, and a large spectrum of evidence for how well different parts worked. This meant that the point of the study was not to demonstrate that the system worked, as might have been done with a large two group experimental design, but instead to make detailed decisions about how to improve the system. As discussed in the Chapter 5, this study had some success in this direction.

A summary of the results of this study for improving the matching system is included at the end of this chapter as Table 4.

IMPORTANCE OF THIS PROJECT: THE FUTURE

As stated in Chapter 1, this project will have been a waste of time if it is considered completed after this dissertation is finished. The point of the project was to start a matching

system that could then be improved over time, until eventually it becomes a system that is truly useful in the therapeutic community. This project created the first version of the matching system, and the study that was part of this project created suggestions for improvements to the system. These improvement suggestions were described in all the "conclusion" sections of Chapter 5.

The next step is that these improvements to the system should be implemented, and a second version of the matching system should be created. This second version of the matching system should then be studied again, using improvements to the study that were also suggested in Chapter 5. (For example, a useful method of assessing Help Ways in session assessments must be created.) This second study would then indicate further improvements, which could be implemented in a third version of the matching system. In this way, improvements would be continuously made to the matching system, based on a series of studies of the successive versions.

It is hoped that the second version of the matching system, resulting from the improvements suggested in the study described in this dissertation, might be good enough to use for matching clients to therapists outside of any formal study. Then clients who wanted to participate in a study would do so, and other clients could be matched without being part of a study. The major test of the system being this successful would be that almost all clients would be as happy with their matches as they expected to be. As explained above, clients expected to be very well matched to their therapists, probably because of the sophistication of the matching system. If this system ever succeeds in meeting these expectations, it will be truly successful.

The scenario of continual improvements and continuing studies described in this section is a wonderful fantasy. Some fantasies come true with enough work. Some never come true. It would be a great accomplishment if this fantasy comes true as described above. Otherwise, this will have been an interesting Ph.D. project that, although personally fulfilling to the researcher, will become lost in the backwater of unread psychotherapy research.

Table 4
Summary of Results for Improvement of Matching System

MATCHING RECOMMENDATION	STATUS	CLIENT ASSESSMENT	THERAPIST ASSESSMENT
Anxiety x Behavioral Techniques	Retain	Improve	Improve
Sexual Problems x Behavioral Techniques	Retain for Further Testing	OK	OK
Stage of Change x Action or Experiential techniques	Retain	Improve & Expand	OK
Stage of Change x Alleviate Premature Termination	Delete But Continue to Test		
Resistance x Directiveness	Retain	Improve	Improve and Separate into Components
Resistance x Paradoxical Interventions	Retain	Improve	OK
Coping Style x Action vs. Insight	Retain	Improve & Expand	OK
Distress x Emotional Intensity	Retain	Improve	Improve
Distress x Structure	Retain for Further Testing	Improve	New Method Needed
Distress x Support & Anxiety Reduction	Delete		New Method Needed
Distress x Instillation of Hope	New: Add	Improve	New Method Needed
Problem Complexity x Symptom Relief vs. Depth	Delete		
Problem Complexity x Therapy Length	Retain for Further Testing	Improve	OK

MATCHING RECOMMENDATION	STATUS	CLIENT ASSESSMENT	THERAPIST ASSESSMENT
Addiction x 12 Step Programs	Delete Unless Better Assessments	Improve	New Method Needed
Anger x Non-Confrontation	Retain	Expand & Improve	Expand & Improve
Complexity Tolerance x Treatment Complexity	Delete Unless Better Assessment	New Method Needed	OK
Perceptions of Reality x Therapist Emphasis	Retain for Further Testing	Expand & Improve	Improve
Anaclitic x Direct & Openly Friendly	Retain	New Method Needed	Improve
Introjective x Less Direct	Retain	New Method Needed	OK
Introjective x Therapy Length	Retain	New Method Needed	OK
Neuroticism x All Recommendations	Delete		
Extraversion x Structure	Delete Unless Better Assessment	OK	New Method Needed
Extraversion x Spontaneous Speech Required	Delete		
Extraversion x Social Interaction	Retain	OK	Improve & Expand
Openness x Provocative vs. Straightforward	Retain	OK	OK
Agreeableness x Support	Retain	OK	Expand & Rewrite
Agreeableness x Confrontation	Retain	OK	OK
Agreeableness x Symptom Reduction	Delete but Continue to Test	OK	Improve Somewhat

MATCHING RECOMMENDATION	STATUS	CLIENT ASSESSMENT	THERAPIST ASSESSMENT
Conscientiousness x Hard Work, Discomfort, etc.	Delete	Defective	
Friendly x Friendly	Retain for Further Testing	OK	New Method Needed
Dominant x Submissive (& vice-versa)	Delete Unless Better Assessments	New Method Needed	New Method Needed
Attachment Style x All Recommendations	Delete Unless Better Assessment	New Method Needed	
Anxiety x Composed vs. Frenetic	Retain	Improve	Expand & Rewrite
Hostility x Comfort with Aggression	Retain	Improve	OK
Depression x Comfort with Depression	Delete		
Sense of Failure x Charisma	Delete		
Preference for Demographics	Retain expect for Parental Status	OK	OK
Preference for Attitudes on Sexual Orientation	Delete		
Preference for Religion or Spirituality	Retain Except for Background	OK	OK
Preference for Values	Retain	New Method Needed	New Method Needed
Preference for Empathy Style	Retain	New Method Needed	New Method Needed
Preference for Epistemological Style	Delete Unless Better Assessments	New Method Needed	New Method Needed
Preference for Therapy Length	Delete		

MATCHING RECOMMENDATION	STATUS	CLIENT ASSESSMENT	THERAPIST ASSESSMENT
Preference for Therapy Depth	Retain	Improve	Improve
Preference for Medication Attitude	Retain	OK	OK
Preference for Talk Subjects	Delete		
Preference for Help Ways	Retain	Improve	Improve
Preference for Types of Insight	Retain	Improve & Expand	Improve & Expand
Preference for Other Therapy Characteristics	Retain	Rewrite	Rewrite