

The therapist in inpatient psychotherapy

The influence of attachment and interpersonal problems
on the therapeutic relationship and outcome

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0 INTRODUCTION

In public opinion, and also reflected in current public health policies, psychotherapy is regarded as effective and is accepted as adequate treatment for people suffering from primary psychological problems. This view is supported by early psychotherapy research studies. After the famous challenge by Eysenck (1952), who proposed that psychotherapy is no more effective than the absence of therapy, numerous efficacy studies have been conducted. They were summarized in several meta-analyses, which disprove Eysenck's proposition and show that, in contrast, psychotherapy is indeed an efficacious form of treatment (e.g. Lipsey & Wilson, 1993; Smith & Glass, 1977). Efficacy is usually defined as significant and clinical meaningful reduction of symptoms, which are measured either by self-observation (via questionnaire) or by external criteria (e.g. medical consultations, weight gain). Average treatment effects are moderate, but consistent and vary between .4 and .6 (Lambert & Ogles, 2004). Today it is common ground among researchers that psychotherapy is an empirically supported, efficacious treatment for various psychological disorders.

After establishing the general efficacy of the treatment, the second major question leading psychotherapy research studies was which treatment is the most effective. Does it matter, which "label" is on the therapy, what theoretical framework is used to understand the nature of the disorder and which set of interventions is preferred? Although major studies are still funded and published today that compare different types of treatment for various disorders, several meta-analyses have come to the conclusion that different forms of therapies yield quite similar results (Leichsenring, Rabung, & Leibing, 2004; Wampold et al., 1997). This finding is known as the dodo-bird verdict: "All have won and all must have their prices"¹.

Moving beyond effectiveness studies, the third major query guiding research in psychotherapy research is the question what makes psychotherapy effective. What are the causal mechanisms underlying change in psychotherapy, and what factors are related to good outcome? This line of research focuses on patient and therapist variables as well as the therapeutic process (Beutler et al., 2004; Clarkin & Levy, 2004; Orlinsky, Rønnestad, & Willutzki, 2004). While several factors that influence outcome have been identified, researchers are far away from understanding why and how psychotherapy works. Wampold (2001) estimates that about 70% of therapy outcome cannot be explained with current research findings and are due

¹ From "Alice in the Wonderland" by Lewis Carroll.

to patient variations. In his meta-analysis findings only 0-1 % of outcome variance can be explained by therapy “schools” and specific techniques. Instead, most variance is explained by so-called “common factors”, i.e. those elements of therapy that are shared by all therapeutic schools. The most influential common factors that were identified by Wampold (2001) are the therapeutic alliance (5%), the person of the therapist (9 %) as well as allegiance effects (i.e. the extent to which the therapist delivering the treatment believes that the therapy is effective). Following Wampold’s findings, the therapist appears to be central for the success of psychotherapy.

Based on and embedded in these findings, the present dissertation attempts to investigate therapist variables, which are relevant for the establishment of the therapeutic alliance. In a first step, the specific context of the research is investigated. In addition to the ambulant outpatient setting, the German medical system also allows inpatient psychotherapeutic treatment of severely impaired patients who are believed to profit better from a highly structured hospital setting. Contrary to the dyadic outpatient setting, the multimodal inpatient treatment includes several therapeutic elements. This results in a greater number of factors that may account for patient change. The extent to which an individual psychotherapist influences the outcome of inpatient psychotherapy has not been investigated so far, even though a pilot study suggests that individual psychotherapists are differentially effective with regard to outcome of inpatient therapy (Schauenburg, Dinger, & Strack, 2005). The first empirical study therefore investigates therapist effects in an inpatient therapy.

In a second step, the influence of specific therapist characteristics on alliance and outcome is investigated. Psychotherapists are faced with the task to establish a positive working relationship with each of their patients. This is not only important as means of enhancing therapy outcome, but also essential in order to prevent patient drop out (Ogrodniczuk, Joyce, & Piper, 2005). Throughout this dissertation, the focus will be on the therapists’ personal relationship history and present trait characteristics with regard to relationships, which are assumed to influence the formation of the professional relationship with patients. In the second study, therapists themselves are asked about frequent interpersonal problems they experience in their private life. Two dimensions derived from these interpersonal problems (affiliation and control) are related to alliance ratings and outcome of their patients. In the third study, therapists’ past and present relationships to attachment figures and their current representations are assessed by interview, and analyzed through expert ratings. The attachment representations are then related to the patients’ alliance ratings and outcome (third study), as well as to the temporal unfolding of the therapeutic relationship over time (fourth study).

I SUMMARY OF THE THEORETICAL BACKGROUND

The task of establishing a positive and productive working alliance with patients is at the core of the daily work of every psychotherapist. The alliance serves as a medium via which therapists' interpersonal skills can be used to help their patients: A therapeutic alliance can be a positive therapeutic experience in itself (Mallinckrodt, 1997) and at the same time a necessary basis for specific therapeutic work that differs according to the therapeutic "school": A psychoanalyst interpreting his patients' current problems and relating it to unconscious desires needs a therapeutic relationship characterized by trust and confidence in the therapist's skilfulness, if the patient is supposed to accept the interpretation and continue working with it. Similarly, a cognitive-behavior therapist will need a relationship characterized by equal trust and confidence in the therapist's abilities, if a patient is supposed to follow his or her instruction during an exposition procedure that is frightening to the patient. In addition, as mentioned before, a positive working alliance is necessary in order to keep the patient in an often demanding and challenging treatment (Ogrodniczuk et al., 2005). A recent empirical investigation of the relative importance of patient and therapist variability in the alliance for a positive outcome (Baldwin, Wampold, & Imed, 2007), revealed that the well-known association between alliance and outcome is largely due to therapist variations in alliance quality. Therapists who, on average, form better alliances with their patients, show better outcomes than therapists with lower alliance qualities. *Within* the caseload of a given therapist, however, the strength of the alliance did not predict outcome, suggesting that patient variability in alliance quality seems less important to outcome. Furthermore, there were no indications for a significant patient-by-therapist interaction. These results highlight the importance of the therapist contribution to the therapeutic alliance.

In their generic model of psychotherapy, Orlinsky and Howard (1987) assume that therapists' personality traits influence relevant process measures, which thereupon impact different aspects of outcome. They define three conceptual levels of variables relevant in psychotherapy. The first level consists of several factors constituting the functional environment in which the therapy takes place. Therapist variables are among those factors and are assumed to influence several process categories including the therapeutic bond. The second level comprises several aspects of the psychotherapeutic process, i.e. the actual interactions between patients and therapists. Among the process measures are the therapeutic bond, but also specific therapeutic operations and several other aspects of the therapeutic contact. The third level, containing several facets of outcome, is influenced by some of the process measures, including the therapeutic bond. On all levels, different factors are believed to mutually influ-

ence each other, and slow change in environmental factors may also take place as a result of therapeutic process and outcome. The generic model is introduced here, because it represents a comprehensive attempt to integrate quite diverse research findings in psychotherapy. The findings obtained in the subsequent empirical findings will be integrated into the model in the discussion section.

Following the findings of Baldwin et al. (2007) as well as the theoretical propositions set out by Orlinsky and Howard (1987), it seems advisable to include the therapeutic alliance in theoretical considerations about the influence of therapist variables on outcome in psychotherapy. Following this reasoning, therapist variables hypothesized to influence the ability to establish a good therapeutic alliance may also be relevant for therapist outcome differences.

The interpersonal problems individuals frequently experience in their personal life seem likely to influence professional relationships as well. Interpersonal problems reflect the typical interpersonal style that an individual usually shows in interaction with others. Research on interpersonal behavior has focused on two dimensions, derived from a large body of research: affiliation and control (Kiesler, 1983). While the typical interaction pattern in unstructured situations is characterized by a similar level of affiliation and a complementary level of control (friendliness evokes friendliness, but dominant behavior results in submissive behavior of the interaction partner), the question which interaction pattern is actually helpful in psychotherapy is still under debate (e.g. Hersoug et al., 2001). The focus of the present work lies on trait-like tendencies of psychotherapists to behave too friendly (or hostile) as well as too dominant (or submissive).

Another approach to relatively stable, relationship-specific tendencies is provided by attachment theory. Attachment related behaviors, cognitions and emotions are conceptualized as resulting from experiences with emotionally significant others over the lifespan and their current representations. Attachment theory proposes that not only protection-seeking, but also care giving behavior is influenced by representations of generalized interactions with significant others (Bowlby, 1988). Therefore, it is assumed, that the professional relationship between patient and psychotherapist is also influenced by their attachment representations. While several studies have been conducted investigating the influence of patients' attachment representations on alliance and outcome in psychotherapy, studies on therapists' attachment are rare.

The following chapter is designed to give a brief overview of the existing literature, providing a starting point for the subsequent empirical investigations. The theoretical over-

view is structured in three main parts: In the first part empirical findings on therapist outcome differences, as well as on the influence of specific therapist characteristics influencing the establishment of the working alliance and positive outcome in psychotherapy are reviewed. In the second part interpersonal theory based on the work of Leary (1957) and Kiesler (1983) is reviewed as theoretical basis for the investigation of therapists' interpersonal problems. In the third part attachment theory is reviewed and its clinical applications are discussed (Bowlby, 1988).

1. Therapist Variables

Most patients view their personal psychotherapist as important for their psychotherapeutic process and attribute large amounts of the therapy failure as well as success to the therapist's empathy and skillfulness (Elliott & Williams, 2003). This view is shared by clinicians and reflected in institutional policies: In order to ensure high levels of therapists' skillfulness, therapists are required to undergo time-consuming and expensive post-graduate clinical training. However, in addition to acquired skills therapist behavior is also influenced by trait-like personality characteristics. In this chapter, empirical studies relating therapist characteristics to alliance and outcome of psychotherapy will be reviewed. It is important to note that a comprehensive overview over the complex theoretical literature on possible therapist influences is beyond the scope of this dissertation. Therefore, the focus will rather be on empirical results relating specific therapist characteristics to alliance and outcome ratings.

1.1 Therapist variance effects

Therapist variance effects refer to the degree that the therapy outcome from one therapist differs from that of other therapists, i.e. the degree to which therapy outcome depends on the particular psychotherapist delivering the treatment. Wampold (2001) assumes that natural variability in the competence of therapists leads to differences in outcome; in addition, interaction effects are likely, as some therapists will be more successful with a certain subgroups of patients and some therapists might also be more effective in the delivery of one treatment type than another. There has been a recent debate on the existence and magnitude of therapist effects, cumulating in a special section of *Psychotherapy Research* (02/2006). Several studies have been published in order to answer the questions: "Do therapists differ in their effectiveness? If yes, how much do they vary?" As the results are not entirely consistent, empirical answers to this issue seem to depend on the methodological strategies used and the samples studied by researchers.

A large number of studies investigating therapist effects stem from Randomized Clinical Trials, which were reanalyzed for therapist effects (Blatt, Sanislow, Zuroff, & Pilkonis, 1996; Crits-Christoph et al., 1991; Elkin, Falconnier, Martinovich, & Mahoney, 2006; Kim, Wampold, & Bolt, 2006; Luborsky, McLellan, Diguier, Woody, & Seligman, 1997; Project MATCH Research Group, 1998). The majority of these studies reported significant differences; the magnitude of reported therapist effects varies from 1-11% of the overall outcome variance. One study on data from the NIMH Treatment of Depression Collaborative Research

Program, however, failed to detect therapist differences and proposed, after reviewing earlier studies, that therapist effects were overestimated (Elkin et al., 2006). This is particularly noteworthy, because a different team of researchers, also known for their methodological competence, investigated the same data pool and came to the contrasting conclusion that therapist effects were present (Kim et al., 2006).

These diverging results highlight the importance of the methodological strategy that is chosen. Comparing the methodological approaches, Kim et al. (2006) analyzed pre-post changes in a two-level hierarchical linear model. Elkin et al. (2006) used a three-level model and assessed outcome by the rate of change on a loglinear scale in a repeated-measures design. In addition, Kim et al. (2006) included the baseline measure as a covariate in the model, while Elkin et al. (2006) adopted an “anchored approach”, where each patient’s change curve is forced to pass through that particular patient’s baseline assessment. This procedure eliminates one source of variance (i.e. the intercept variance) and places more emphasis on the change that happens throughout treatment. The two analyses, even though they were conducted on the same data set, including the same patients and measures, are therefore not directly comparable. The diverging findings demonstrate that in order to interpret the findings of research studies on therapist effects, the methodology of the study is of great importance.

In addition to the statistical approach adopted, the influence of sample characteristics has also been discussed. Randomized Clinical Trials (RCTs) bear many advantages, among which random assignment is probably the greatest with regard to the study of therapist effects. Patients are randomly assigned to therapists, ruling out possible selection effects. However, RCTs bring along several disadvantages concerning external validity (Leichsenring, 2004). Patients are usually a homogeneous, highly selected group. Treatments are manual-based, and therapists are also carefully selected and extensively trained in the specific treatment they deliver. Their adherence to the treatment manual is usually controlled by experienced supervisors and adherence checks. It seems likely that these procedures, which are designed to allow the evaluation of typical treatments against each other, will result in a lower degree of therapist variability. In addition, the number of participating therapists is usually small, seldom allowing for sufficient power in statistical analyses. Naturalistic studies, on the other hand, can include a considerably greater number of therapists. In addition, the clinical validity of naturalistic therapies is higher (Leichsenring, 2004). A drawback of naturalistic studies is that it is often difficult to reconstruct the explicit and implicit selection criteria that influenced the non-random assignment of patients to therapists. In addition, time and frequency of treatment are not necessarily standardized, complicating the comparisons of outcome ratings.

Several studies on therapist effects in naturalistic outpatient therapy have been published so far (Lutz, Leon, Martinovich, Lyons, & Stiles, 2007; Okiishi, Lambert, Nielsen, & Ogles, 2003; Okiishi et al., 2006; Wampold & Brown, 2005). These studies are characterized by large numbers of therapists, who carried out routinely delivered treatment in a naturalistic setting. Summarizing their results, they find considerable outcome differences between therapists, as some therapists are more successful than others. Contrary to most authors' expectations, however, the magnitude of therapist variations is moderate and comparable to therapist differences in RCTs. Wampold & Brown (2005) report that about 5% of therapy outcome variance is due to therapists, while Lutz et al. (2007) found that 8% of the total outcome variance (i.e. the variance of the symptom score at termination) and 17% of patient improvement rates over time were due to therapists.

Summarizing research on therapist effects, there are clear indications for therapist effectiveness differences in outpatient psychotherapy. The magnitude of therapist differences, however, seems to depend clearly on the chosen methodological strategy and the sample under investigation. This led Soldz (2006) and Crits-Christoph & Gallopp (2006) to conclude that more empirical studies in various settings with a sufficient number of therapists are needed in order to solve this issue. In addition, it seems desirable to include additional measures in order to understand therapist effects more thoroughly. As reasoned before, therapists are likely to influence outcome via the therapeutic alliance. Only one study, however, investigated therapist effects on alliance so far and reported mixed findings, based on the measures and the observer perspective (Hatcher, Barends, Hansell, & Gutfreund, 1995). Therefore, more studies in this domain are desirable.

The identification of therapist variance can only be a first step in the research process. In order to improve treatment conditions and enhance outcome of psychotherapy, specific variables that influence the therapeutic process, alliance and outcome have to be identified. Accordingly, the following chapter reviews research on the influence of specific therapist characteristics in outpatient therapy.

1.2 Influence of specific therapist characteristics

The findings on specific therapy variables can be divided according to the dependent variable in question: A large amount of research has been conducted in order to study the influence of therapist variables on outcome. In addition, there have also been studies investigating variables influencing the therapeutic alliance. Even though both areas are interrelated, as

alliance is assumed to enhance outcome in the end, the two groups of studies are presented separately for greater clarity.

1.2.1 Therapist variables influencing outcome

In their comprehensive review on the influence of therapy variables in outpatient settings, Beutler et al. (2004) classify therapist variables into four quadrants, representing two intersecting dimensions. The first dimension ranges from “extratherapy traits”, reflecting an enduring quality that is manifested in the therapist’s extratherapy life, to “therapy specific states”, i.e. the degree to which the variable describes a characteristic part of the role as a psychotherapist. The second dimension established a distinction between subjective and objective qualities, differentiating if the variable in question could be directly observed or if it had to be inferred, mostly from the therapist’s own perspective. As the detailed empirical findings can be found in their comprehensive review, only the main conclusions of Beutler et al. (2004) will be recapulated here.

Research on *observable traits* has mainly concentrated on therapists’ sociodemographic characteristics age, sex and race. Evidence for these variables as meaningful predictors of outcome is sparse. However, correspondence with patient factors have to be taken into account, which sometimes reveal differential effects (e.g. especially when treating minorities, racial similarity between patients and therapists seems to have a small beneficial effect on outcome [Beutler et al., 2004]).

Although only few studies investigating the influence of *observable states* on outcome were published, Beutler et al. (2004) concluded that there are some interesting effects. Therapist training, skill, experience and therapeutic style are weak, but consistent predictors of outcome. In addition, a large body of research around RCTs has investigated the effects of intervention and techniques. Beutler et al.’s analysis, however, reveals that most interventions are only poorly correlated with outcome, which is consistent with the previously cited findings of Wampold (2001). There seems to be accumulating evidence the effectiveness of a specific intervention depends on patient and situational factors, and that all procedures have an effect, when they are used on a “compatible” patient (Beutler et al., 2004).

Several variables classified as therapists’ *inferred traits*, were also related to therapeutic success. Therapist well-being and cultural beliefs are modest predictors of outcome. The influence of therapist attitudes and values also depends on those of the patients, allowing for therapeutic change when certain attitudes encounter each other. In general, variables classified

as inferred traits are more likely to influence outcome because of relational aspects reflected in patient-therapist similarity than via a unidirectional way (Beutler et al., 2004). This reasoning is consistent with the previously proposed assumption that a large share of the therapists' personality trait will exert their influence on outcome via the therapeutic alliance.

The two most important variables in the *inferred state* category are the therapeutic relationship and the therapist's theoretical orientation, both receiving a large number of empirical investigations. While the theoretical orientation of the therapist appears to have little to no influence (Beutler et al., 2004), the positive influence of the therapeutic relationship is well documented (Martin, Garske, & Davis, 2000). With regard to the influence of therapist variables, one can divide the research into studies on the impact of the relationship on outcome and into studies investigating the influence of therapist characteristics on the relationship. The latter studies are reviewed in the following section

1.2.2 Therapist variables influencing the therapeutic alliance

Therapist variables influencing the therapeutic alliance have been outlined by Ackerman and Hilsenroth (2001; 2003), who examined factors negatively affecting the alliance separately from factors with a positive impact on alliance. In their earlier review, Ackerman & Hilsenroth (2001) summarize personal attributes and therapeutic techniques that have a detrimental impact on the quality of the therapeutic alliance in empirical studies. They list personal attributes and techniques, assigning each negative personal attribute a specific technique. Variables shown to have a negative impact were therapist rigidity (technique: overstructuring the therapy), uncertainty (technique: failure to structure therapy), exploitiveness (technique: inadequate self-disclosure), therapist distance (technique: unyielding transference interpretation), tenseness (inappropriate use of silence), distractedness (technique: superficial interventions) and criticism. In their second review that focused on the identification of personal attributes and techniques positively impacting the alliance, Ackerman and Hilsenroth (2003) chose a similar approach, again summarizing their review with a list of personal attributes and techniques related to alliance. Variables that had a positive influence on alliance included therapist flexibility, experience, honesty, respectfulness, trustworthiness, confidence, interest, alertness, friendliness, warmth and openness. Among the helpful techniques were exploration, depth, reflection, supportiveness, accurateness of interpretation, understanding and attending to patient's experience.

Although the reviews by Ackerman & Hilsenroth (2001; 2003) are detailed in nature and summarize the previous research comprehensively, the personal attributes they describe

seem more like a description of aspects of a positive alliance (warm, respectful, interested) than of specific traits or pre-conditions that enable a therapist to establish a positive relationship with patients. This may be due to the fact that only few studies have been published investigating the influence of therapist's personal traits and aspects of their professional background on alliance. Findings for therapists' professional variables have been mostly insignificant (for therapist experience, training and professional skills [Hersoug, Høglén, Monsen, & Havik, 2001]). Relational variables seem to exert more influence: Findings from the Vanderbilt Psychotherapy study (Henry, Schacht, & Strupp, 1990) as well as the work by Dunkle and Friedlander (1996) suggest a negative influence of therapist's hostile introjects on therapeutic process and alliance. Therapists with lower self-directed hostility as well as more perceived social support and greater comfort with closeness were more likely to establish positive emotional bonds with their patients (Dunkle & Friedlander, 1996). This finding is consistent with the results from Hersoug et al. (2001), who found a negative impact of low affiliation from therapists' interpersonal problems.

The previously reviewed research on the influence of therapist variables on alliance and outcome in psychotherapy has been conducted on psychotherapy outpatients receiving individual psychotherapy, reflecting the fact that only time-limited outpatient therapy has a chance of being funded in the United States and many other countries. In the next chapter, the possibility and limitations of applying these findings to inpatient psychotherapy will be discussed.

1.3 Therapists in Inpatient Psychotherapy

Inpatient psychotherapy is a well-established treatment in Germany. The German health care system offers a relatively good infrastructure compared to other countries, especially when compared to the United States. About 400.000 patients are treated with inpatient psychotherapy each year in Germany (compared to about 300.000 treated with ambulant outpatient therapy). Of those, 150.000 are treated in rehabilitation clinics, 220.000 in psychiatric institutions and 25.000 in psychosomatic-psychotherapeutic clinics (Barghaan, Harfst, Koch, & Schulz, 2005). It can be assumed that of the patients treated in psychiatric institutions, only 30% actually receive psychotherapy, while the rest receives primarily pharmacotherapy. In contrast, all patients in psychosomatic-psychotherapeutic clinics are generally treated primarily with psychotherapy, which may be supplemented by pharmacotherapy (Barghaan et al., 2005). The "typical" inpatient psychotherapy described in the following is usually found in psychosomatic-psychotherapeutic clinics.

Indications for inpatient psychotherapy are severe psychological or physical comorbidity, high intensity and severity of symptoms, danger to hurt oneself or others and an extraordinary burden through a stressful situation at home (Schauenburg et al., 2006). These severely disturbed patients are believed to profit more in a highly structured inpatient environment than in a less frequent dyadic outpatient setting. Inpatient psychotherapy is usually a multimodal approach, requiring an interdisciplinary team of physicians, psychologists, creative therapists (mostly art and body-oriented, sometimes music therapists), social workers and nurses. Disorder-specific therapy elements are often integrated in the treatment and the percentage of individual versus group settings vary from clinic to clinic. All major theoretical schools are found as underlying therapeutic approaches, but especially in the psychosomatic-psychotherapeutic institutions a psychodynamic orientation dominates (Schauenburg et al., 2006). The complete “package” of typical inpatient psychotherapy has been shown to be effective (Franz et al., 2000). The weighting of the relative importance of specific ingredients remains difficult, as ethical and practical reasons prohibit an experimental variation. In one of the few studies evaluating the effect of specific components in an additive design, Kordy, von Rad and Senf (1990) compared a mere group inpatient treatment with a combined group and individual psychotherapy treatment. Patients evaluated all therapeutic components retrospectively. The perceived helpfulness of all other components decreased, when patients received individual psychotherapy and individual therapy was the component with the greatest perceived helpfulness for most patients in the combined group. These results indicate that, at least from the patient perspective, dyadic individual psychotherapy remains important in a multimodal inpatient setting.

The precise role of the individual psychotherapist differs according to the therapeutic concept of each clinic. Individual psychotherapy is usually scheduled once or twice a week; in addition, the individual therapist sometimes functions as group therapist as well. In many, but not all institutions is the individual therapist the coordinating person for all therapeutic components of a particular patient. A central distinction to outpatient therapy is that patients are enabled to form therapeutic relationships with more than one therapist on the unit. Patients interact not only with nurses and creative therapists, but also among each other. It is possible that the multiple relationship-offers a patient encounters balance out existing therapist effects. This could be possible in two directions: The positive effect of a strong alliance with the individual therapist on outcome could be reduced by negative relationship experiences with others. In contrast, it is also possible that negative effects of a low-quality alliance with the individual therapist are absorbed by good relationships with nurses, other therapists or fellow pa-

tients. A strong alliance with the individual therapist has previously been related to outcome of individual psychotherapy (Sammet, Staats, & Schauenburg, 2004), but it is unclear whether the influence of the therapist and his or her personal characteristics are similar to outpatient therapy. A pilot study investigating the influence of the individual therapist in inpatient psychotherapy found significant outcome and alliance differences among 9 inpatient psychotherapists (Schauenburg, Dinger, & Strack, 2005). Therapist differences on outcome were comparable to those reported for outpatient therapy (10%), while therapist differences in alliance ratings were substantially larger: 45% of variance in alliance ratings was due to therapists. Even though the findings from the pilot study have to be treated with caution, as only 9 therapists were included, they suggest that the person of the individual psychotherapist plays an important role in the multimodal inpatient treatment.

2. Interpersonal problems: Underlying traits

As already stated in the introduction, therapists' interpersonal problems are assumed to be relevant for behavior in the professional interactions with patients in psychotherapy. In order to provide a theoretical background for the empirical study investigating interpersonal problems and to explain the assumption of the relevance of interpersonal problems, core constructs and major empirical findings regarding interpersonal theory will be reviewed in the following section.

The roots of interpersonal approaches to personality are in multiple disciplines that include psychiatry, sociology, communication theory, personality and social psychology and (Kiesler, 1982). The foundation was laid by Sullivan (1953), a psychiatrist who conceptualized human personality as an enduring pattern of recurrent interpersonal situations, which characterize human life. One line of research that followed Sullivan focuses on two theoretically and empirically derived dimensions of interpersonal behavior: affiliation (friendly-vs.-cold) and control (dominant-vs.-submissive). A central assumption is that the previously mentioned recurrent patterns of interpersonal situations represent distinct combinations of the two basic dimensions. An interpersonal circle was developed around the axes of friendliness-coldness and dominance-submission (Leary, 1957; Kiesler, 1983), which allows the assignment of a specific interpersonal behavior to a coordinate in the circumplex model. Behaviors with more extreme degrees of affiliation and/or control, are located at the outside of the circle, while more moderate behaviors are in the middle of the circle (see Figure 1). The interpersonal circumplex model assumes an interdependency of interpersonal behaviors: A particular behavior of one person is usually followed by a "complementary" reaction of the interaction partner. Kiesler (1983) defines interpersonal complementarity as similar affiliation and opposite control: friendliness is usually returned with equal friendliness (as is hostility), but dominant behaviors result in submissiveness of the interaction partner (and vice versa).

Even though some of the original propositions about interpersonal behaviors have been questioned (e.g. Orford, 1986) and the exact design of the interpersonal circumflex model has been revisioned by a number of authors (e.g. Kiesler, 1983; Strong et al., 1988; Wiggins, 1995), recent social-psychological studies confirm central assumptions of the model. The proposition that complementary interaction patterns occur more frequently than other patterns was tested by Markey, Funder, & Ozer (2003), who investigated the dyadic interaction patterns in three different situations (unstructured, cooperative, competitive). The pattern of similar affiliation and opposite control was confirmed, when independent raters evaluated

the displayed behaviors. In addition to the situational interdependency of interaction behaviors, it is also assumed that relationships last longer and are more satisfying between individuals, whose trait-like tendencies to behave in interpersonal situations are complementary to each other, compared to relationships between individuals with non-matching interpersonal dispositions. Tracey, Ryan, & Jaschik-Herman (2001) tested this by asking student subjects to rate the usual interpersonal behavior of both their parents or of themselves and their best friends. Similar affiliation and opposite control was confirmed both for the parental relationship in married parents and for friendships, but a lower degree of complementarity was found for divorced parents.

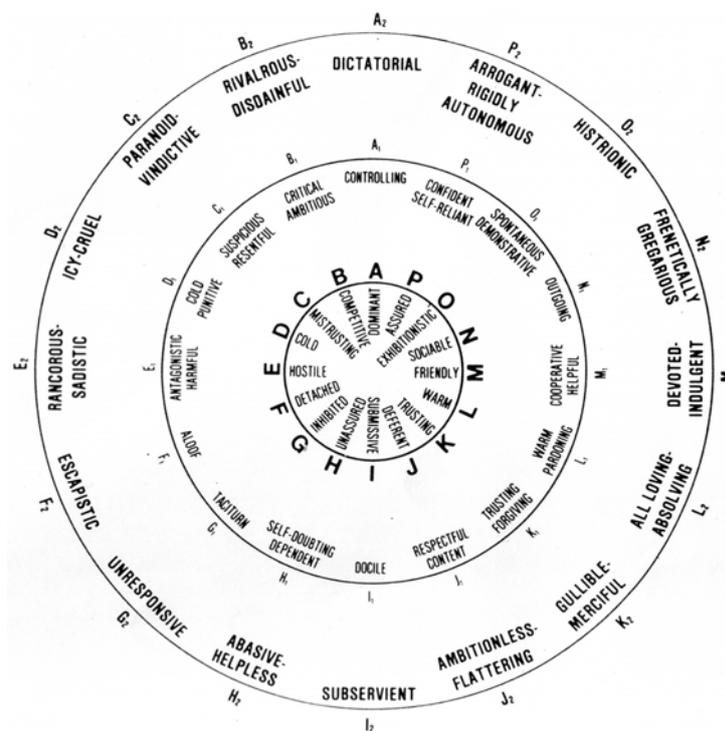


Figure 1. The 1982 interpersonal circle by D. Kiesler.

From: Kiesler, D.J. (1983). The 1982 Interpersonal Circle. A Taxonomy for Complementarity in Human Transaction. *Psychological Review*, 90. p. 189

In addition to relationships with romantic partners and close friends, interpersonal behaviors are also relevant in a variety of other, professional and non-professional, domains. The interpersonal circumplex model has received a lot of attention from psychotherapy researchers. Interpersonal dispositions and problems are assumed to be a central part of psychopathology and can serve as target “symptoms” of psychotherapeutic treatment. Relational difficulties with other people are one of the main reasons for patients to seek help in psychotherapy (Horowitz, Rosenberg, Baer, Ureno, & Villasenor, 1988). At the same time, interpersonal difficulties can also arise in therapy, as the patient-therapist relationship is likely to be influenced by the patient’s and the therapist’s tendencies to react in interpersonal situations.

Furthermore, patient and therapist interpersonal behavior and interpersonal traits have been shown to be a relevant predictor for therapeutic outcome. When evaluating the therapeutic interaction, a U-shaped degree of complementarity has been related with successful outcome: Initial high level of complementarity, decreasing levels of complementarity towards the middle phase and increasing complementarity towards the end of therapy was found in successful, but not in unsuccessful therapist patient dyads (Dietzel & Abeles, 1975; Tracey, Sherry, & Albright, 1999). Taken that complementary relationships are perceived as more satisfying (Dryer & Horowitz, 1997), this finding corresponds to Gelso and Carter's (1994) well-known proposition, that productive therapeutic relationships are U-shaped with high alliances in the beginning and termination phase, and lower alliance quality in the middle or "working" phase of treatment. In addition to studies on the observable interaction between therapist and patient, a large body of research has focused on the influence of interpersonal traits in psychotherapy. Different principles seem to apply for outcome and alliance: Kiesler and Watkins (1989) show that the quality of the therapeutic alliance profits from patient-therapist complementarity in interpersonal traits. Andrews (1990), on the other hand, found that patient-therapist matches that were characterized by a moderate "interpersonal challenge", i.e. a deviation from similar affiliation and opposite control, were more likely to produce good outcomes.

2.1 Influence of patients' interpersonal problems

One instrument deduced from the interpersonal circumplex model that is widely used in psychotherapy research is the Inventory of Interpersonal Problems IIP (German version: Horowitz, Strauß, & Kordy, 2000). It integrates interpersonal problems that patients frequently reported in psychotherapy into the circumplex model. Based on the ratings of frequent interpersonal problems that can be located on the outside of the interpersonal circle, eight subscales are computed that represent octants of the interpersonal circle around the dimensions affiliation (ranging from "too friendly" to "too cold") and control (ranging from "too dominant" to "too submissive"). In numerous studies, patients' interpersonal problems were used as predictor for therapeutic outcome in outpatient settings. Horowitz et al. (1988) showed that patients with more interpersonal than intrapsychic problems responded better to brief psychodynamic therapy, indicating that patient's interpersonal problems might be of differential importance for the response rate to different treatments. Most studies on the influence of patient's specific interpersonal problems reported a positive influence of patient affiliation on treatment outcome: Patients that describe themselves as too friendly in interaction with others

show a greater symptom reduction during psychotherapy (e.g. Schauenburg, Sammet, Kuda, & Strack, 2000). Findings on the influence of interpersonal problems related to patient dominance are more diverse, as some studies reported no significant association between patient dominance and outcome (e.g. Filak, Abeles, & Norquist, 1986), while others found high dominance to have a detrimental effect on treatment outcome (e.g. Borkovec, Newman, Pincle, & Lytle, 2005). The picture becomes more complex, when the findings of Ruiz et al. (2005) and Puschner, Kraft, and Bauer (2004) are taken into account: Ruiz et al. reported that no specific interpersonal problem of patients was associated with outcome after the general level of interpersonal difficulties was taken into account and Puschner et al. found that the effects of interpersonal problems differed across forms of psychotherapeutic treatments. Only in psychodynamically oriented treatment, *low* affiliation predicted therapeutic success, which contrasts previous findings. Taken together, the results on the influence of patients' interpersonal problems are not uniform. One possible explanation is the presence of interaction effects as patients' interpersonal problems might differentially influence outcome due to other patient variables (e.g. diagnoses, symptom severity), treatment variables (e.g. type of treatment, length) or therapist variables (e.g. therapists' interpersonal problems, professional experience). As no studies on most of these interaction effects exist, more research is needed in order to better understand the influence of patients' interpersonal problems in psychotherapy.

2.2 Influence of therapists' interpersonal problems

The influence of therapists' interpersonal problems on outcome and alliance has also been of interest to researchers, although fewer studies were conducted compared to the investigations of patient variables. Classified in the four categories of therapist variables defined by Beutler et al. (2004), interpersonal problems related to the dimensions affiliation and control are inferred traits. However, most studies on the influence of therapist interpersonal traits have combined trait measures (e.g. of therapist introjects) with observable interpersonal behavior or other process measures. Henry et al. (1990) reported that therapist with hostile introjects were more likely to treat their patients in a disaffiliative manner and Hersoug (2004) found that therapists with hostile introjects gave more interpretations in psychodynamic therapy.

Therapists' interpersonal problems that influence the quality of the alliance they establish with patients have already been reported in Chapter 1.2.2. In general, interpersonal problems related to low affiliation (i.e. hostility) are associated with low-quality alliances. In addition to a lower quality alliance, the Vanderbilt psychotherapy studies showed that therapists'

hostile introjects as well as observable hostile behaviors were related with less favorable outcome in outpatient psychotherapy (Henry et al., 1990). Compared to overall therapist interpersonal behavior, disaffiliative behaviors composed only a small percentage of therapist actions. Nevertheless, they were consistently related to reduced patient outcome. This finding was replicated by Hersoug (2004). The Vanderbilt research group around Strupp also showed that the observable interpersonal process in psychotherapy mediates the relation between therapists' early parental relations and outcome (Hilliard, Henry, & Strupp, 2000). Therapists in their study rated their early parental relations to mother and father on the INTREX questionnaire (Benjamin, 1983) and the interpersonal process between therapist and patient was coded by independent coders following the SASB coding manual (Benjamin, Giat, & Estroff, 1981). The quality of therapists' parental relations influenced the interpersonal process (high-quality parental relations were associated to significantly less disaffiliative actions) and therapist interpersonal process was associated with outcome (more disaffiliative actions were associated with reduced outcome). This mediation seems clinically plausible and can serve as explanation for the positive effect of therapist affiliation.

3. Attachment Theory

The second theoretical construct that is assumed to influence therapists' ability to establish positive alliances with their patients as well as the outcome of psychotherapy is attachment theory based on the work of John Bowlby. He proposed a primary human need for emotional bonds and closeness with so called "attachment figures", i.e. with significant others. Bowlby's approach towards the understanding of the human attachment system is ethological, conceptualizing a biological need for attachment as independent of other primary needs such as desires for sexuality or food (Bowlby, 1988). A newborn infant arrives in the world with a set of pre-programmed behavior patterns, which unfold in the early months and serve as a tool in order to keep the primary attachment figure – in most cases, the mother - in close distance, thereby maximizing protection and survival. When the child grows older, attachment-related needs and behaviors change. By the first year, the attachment behaviors are organized cybernetically, being activating under certain conditions and deactivated when other conditions obtain (Bowlby, 1988). This still holds true for older children, adolescents and adults, although the specific conditions that activate and deactivate the attachment system change throughout the lifespan. As children progress and experience specific responses to their attachment needs, internal working models develop that represents the expected availability of an attachment figure and the child's representations of attachment-related experiences. The internal working models serve to regulate, interpret and predict both the attachment figure's and the self's thoughts, feelings and behaviors (Bretherton & Mulholland, 1999).

The reactions of caregivers and attachment figures towards the displayed attachment behavior of the infant and toddler result in the development of specific attachment strategies that can be investigated in standardized situation. A well-known paradigm is the "strange situation" developed by Mary Ainsworth (Ainsworth, Blehar, Waters, & Wall, 1978), where children between 12 and 18 months of age are presented with a sequence of 8 situations including times of separation and reunion in an unfamiliar playing room. Especially the reactions to the interpersonal stress of being left alone by the mother, the reaction towards a stranger as possible comforter and the child's reaction towards the mother when she returns as well as the amount of exploration of the surrounding the child engages in are informative for the assessment of the child-mother attachment. Children can be classified into three organized and one disorganized attachment patterns. *Secure* children show interest in the toys and explore the playing room as long as the mother, representing a "secure-base" in this unfamiliar

environment, is present. When left alone, secure children show irritation and may cry. However, they are relatively easy to comfort when the mother returns and may also be soothed by the stranger. *Insecure-ambivalent* children show affectionate and/or clinging behavior towards the mother, their exploration behavior is reduced. They express strong distress when left alone and show ambivalence, torn between resentment and desire for closeness, when the mother returns. The *insecure-avoidant* attachment strategy can be described as “pseudo-independent”. Children in this category tend to ignore the mother and show few emotions, regardless if the mother is present or not. For children in both insecure categories, the extent to that the mother represents a secure base, providing a sense of security and allowing for exploration, appears to be reduced (Ainsworth et al., 1978). Later, a fourth category was developed in order to describe attachment behavior of children that is less organized compared to the behavior described by the traditional three strategies. Children classified as *disorganized* may show behavior from all three organized categories. Characteristic are short episodes where the child freezes, disorganized children also display bizarre behaviors (Main & Solomon, 1986; Solomon & George, 1999). Following research with very young children, different research paradigms have been developed in order to assess attachment strategies of older children and adults. Longitudinal studies showed that infant attachment has predictive value for attachment characteristics later in life (see Grossmann, Grossmann, & Waters, 2007). However, when the child grows into adolescence and young adulthood, more and more mediating variables operate between early and later strategies. Simpson, Collins, Tran and Haydon (2007) showed that the effect of infant attachment on relationship qualities with romantic partners in the early twenties was mediated by peer competence in childhood and secure attachment in friendships with 16 years.

3.1 Adult Attachment and Caregiving

In addition to the intrapersonal stability of attachment strategies, the intergenerational tradition of attachment from mother to child has also been investigated. Pregnant mothers classified as secure are more likely to have secure infants in the strange situation one year later (Fonagy, Steele, & Steele, 1991). The relation between adult attachment and caregiving will therefore be reviewed in the following section.

When talking about adult attachment, one has to be careful not to compare apples with oranges. There are two main traditions in the assessment of adult attachment. Coming from a background in developmental and to some extent clinical psychology, most of the classical findings regarding parenting and care giving behavior have been obtained by interview meth-

ods. This line of research is paralleled by personality and social psychologists, who are often interested in adult romantic relationships or friendships and who developed questionnaires in order to assess attachment characteristics via self-report. Even though both lines of research originate from the work of John Bowlby, the measures they created tend to correlate only weakly. Nevertheless, both research traditions have obtained meaningful results with their instruments, suggesting that questionnaires and interviews measure different aspect of the broad concept “attachment” (Roisman, et al., 2007). For the present overview as well as the empirical studies later on, the focus lies on interview-based attachment representations.

The “gold-standard” in assessing adult attachment representations by interview is the Adult Attachment Interview (AAI), developed at the University of California at Berkeley (George, Kaplan, & Main, 1985; Main & Goldwyn, 1985). The AAI is a semi-structured interview, where subjects respond to 18 questions about early relations to their parents and family life. The questions are designed “to surprise the unconscious” and allow the assessment of underlying attachment representations. Unlike infant behavior in the strange situation, AAI texts are coded with respect to the overall state of mind, not with regard to any particular person. The coding places a major focus on the general mental state of adults with regard to their early relationship experiences, which is reflected in the narrative coherence of the discourse. Less emphasis is placed on the mere content of the reported experiences. Individuals classified as *secure-autonomous* (F) generally value attachment, but seem objective regarding any particular relationship event. Their description of attachment-related experiences is consistent and coherent. Adults in the *dismissing* category (Ds), which corresponds to the avoidant group in infants, tend to dismiss attachment-related experiences and relationships. They may often times idealize their early relations, but fail to support general attributes by illustrative episodes from their own history. Transcripts from their interviews tend to be very brief. Individuals in the *preoccupied* group (E) on the other hand, appear preoccupied with past attachment experiences. They may be angry, passive or fearful and often speak in long, entangled sentences. Their transcripts are often excessively long. Finally, the *unresolved* category (U) describes persons with striking lapses in the discourse, especially when discussing loss or abuse. Lapses include prolonged silence, eulogistic speech or the expression of irrational beliefs (Hesse, 1999).

The AAI was developed in order to predict infants’ attachment strategy in the strange situation from the mothers’ attachment representation. The evidence for the influence of mothers’ attachment status on children’s observed behavior is impressive, a meta-analysis of 18 studies showed a combined effect-size of $d=1.06$ for secure vs. insecure distinction (van

Ijzendoorn, 1995). Secure adult attachment was shown to predict parental sensitive responsiveness, which is assumed to mediate the relation between attachment representations of parents and the observed strategies in their children. Maternal sensitivity, defined as the ability of the mother to respond appropriately and promptly to the signals of the infant, influences the development of secure attachment in infants to a moderate, but consistent degree (De Wolff & van Ijzendoorn, 1997). However, only part of the influence of maternal attachment representations on infant attachment behavior is explained by sensitivity. A more recent approach is the reflective functioning of parents as explanation for the transmission of attachment. Reflective functioning is the ability to mentalize, to represent behaviors in mental states and have a “theory of mind”. A higher degree of reflective functioning permits caregivers to reflect the child’s affective state accurately, but not overwhelmingly, back to the child (Fonagy & Target, 1997). Ratings of the quality of reflective functioning of caregivers are associated with secure attachment in infants (Fonagy, Steele, Steele, Moran, & Higitt, 1991).

Apart from parenting behavior, adult attachment is also relevant to caregiving in romantic relationships. Again it should be stated, that only findings obtained from studies that assessed attachment representations by interview are reviewed here, as the large body of research from personality and social psychologists regarding the influence of self-reported attachment styles on various aspects of romantic relationships are beyond the scope of this overview (see Feeney & Collins, 2004, for an informative synopsis). Empirical investigations of married and unmarried couples showed that overall attachment assessed with the AAI is correlated, but not equal to relationship-specific attachment representations. Both overall and relationship-specific attachment security are related to secure base behavior between couples. Secure base behavior between adults is characterized by interest in the partner, recognition of signals and distress, correct interpretations and responsiveness (Crowell & Waters, 2005). The concept of the secure base is a key concept in attachment theory and applies for early as well as for adult relationships. Just as parents provide a secure base for their child, from which he or she explores the surrounding world, a partner that becomes an attachment figure will serve a similar function. When the partner offers a feeling of security and support, one can move away and engage in other activities, confident that the secure base will be available if needed (Waters & Cummings, 2000). A central distinction to the parental relationship, however, is that adult partners manifest reciprocal secure-base behavior, where both partners seek and provide support for the other. Higher secure-base behavior in couples was associated with less negative communication and lower levels of relationship conflict (Crowell & Waters, 2005).

Research on couple relationships confirmed the relevance of attachment relationships between adults. The following section reviews, if characteristics of attachment relationships also apply for the therapeutic relationship between patient and therapist in psychotherapy.

3.2 Attachment in Psychotherapy

One important characteristic of attachment relationships is the use of the attachment figure as secure base for exploration that has been found in adult couple relationships as well as between parents and infants. Following Fraley (1998, as cited by Strauss, 2006), additional elements of attachment relationships include the use of the other person as safe haven and “protective resort” in times of distress and the degree of protest and stress that is experienced on separation or loss. A central question with regard to attachment in psychotherapy is whether the therapeutic relationship has qualities of personal attachment relationships and where potential differences lie. Bowlby (1988) applied the concept of the secure base to psychotherapy, assuming that the therapist ought to act as secure base in order to allow the patient to explore his or her inner world, deal with painful experiences of their past and present life and try new ways of thinking and behavior. This line of reasoning is followed by other theorists. Farber, Lippert, & Nevas (1995) find several similarities in the therapeutic relationship compared to early relationships with primary attachment figures. They note that the therapist is usually perceived as “wiser and stronger” (see also Dozier & Bates, 2004). The patient will usually enter into treatment in a state of distress, turning to the therapist in the expectation that he or she will help to relieve the distress. The patient’s attachment system is therefore likely to be activated during the first therapy sessions, increasing the possibility that a reliably available therapist with genuine interest in the patient’s problems and a wish to help will serve functions of an attachment figure. However, Farber et al. (1995) also note some distinct differences of the therapeutic relationship to early attachment relationships. Both patient and therapist know about the temporal limitations, and there are relevant structural differences, as the therapeutic situation is a professional context for the therapist but not the patient. In addition, socioeconomic and ethnical differences between patient and therapist may be greater than in personal relationships. However, Farber et al. (1995) conclude that therapeutic relationships fulfill some criteria of attachment relationships and note that it is relevant for therapists to pay special attention to attachment-related topics in psychotherapy.

Several studies have been conducted on the influence of patient’s attachment characteristic on psychotherapeutic process and outcome. In addition to a large number of studies on the influence of self-reported attachment styles as assessed by questionnaire on alliance rat-

ings (see Daniel, 2006, for a comprehensive overview), a few studies have been published on the influence of interview-based attachment representations. Secure attachment, which is less frequent in patient samples compared to non-clinical populations, appears to be a resource that enables patients to profit better from psychotherapy (Meyer, Pilkonis, Proietti, Heape & Egan, 2001), although a recent multisite study in the context of inpatient therapy suggests that the influence of patient's attachment security on outcome might be smaller than expected (Strauss et al., 2006). In addition, Fonagy et al. (1996) found that dismissive patients show greater symptom improvement in analytically oriented psychotherapy.

So far for the patients' side. Considerably less is known about the qualifications that enable a therapist to act as positive attachment figure and to provide a sufficient secure base for patients. In analogue to parental caregiving, a therapist's "care" for patients might depend on his or her personal attachment representations, which should result in better alliances and outcomes for patients treated by secure therapists. To date, mostly data on self-reported attachment styles of therapists exist. Contrary to expectations, secure attachment of therapists assessed by questionnaires was not consistently related to better alliances and outcome. The influence of therapists' attachment anxiety, which partially corresponds to interview measures of attachment preoccupation, as well as the influence of therapists' attachment avoidance, which overlaps with interview measures of dismissiveness to some extent, on alliance and outcome is either weak or not consistent over studies (Daniel, 2006). The studies by Dozier and colleagues, however, suggest that interview-based measures of psychotherapists may be relevant, although they did not investigate classic psychotherapy. They assessed interview-based attachment styles of psychiatric patients and their case managers and found a positive influence of opposite attachment patterns with regard to attachment activation. Hyperactivating patients improved better, when their case manager obtained higher deactivating attachment scores and deactivating patients had better outcomes with hyperactivating case managers (Tyrrell, Dozier, Teague, & Fallott, 1999). In addition, they explored process measures and showed that secure case managers acted complementary to their patients' attachment style. While insecure case managers intervened in greater depth and perceived higher dependency needs in hyperactivating patients, the opposite was true for secure case managers, who intervened in greater depth with deactivating patients. This behavior was interpreted as therapeutic challenge to patients' predominant attachment behavior (Dozier, Cue, & Barnett, 1994).

The studies in the context of clinical case management are clinically plausible and suggest that therapists' attachment, as well as the patient-therapist match with regard to at-

tachment characteristics might be relevant for the success of psychotherapy. However, additional studies in the context of more traditional psychotherapy would be useful in order to gain a better understanding of these issues.

II DEVELOPMENT OF THE RESEARCH QUESTIONS

1. Open questions for study 1: therapist variance effects

The previous chapters gave a brief introduction over relevant literature, providing a theoretical and empirical framework for the following empirical studies. The overview began with the notion of the impact of the therapeutic alliance on patient improvement (chapter 1). Recent findings point to the importance of therapist differences in alliance formation for therapy outcome, which seem more influential than patient variations in alliance ratings. Therapists who form positive alliances with their patients have better outcome rates than therapists who establish alliances of lower quality (Baldwin et al., 2007). This finding highlights the importance of therapist influences in psychotherapy. The influence of therapist variables was therefore reviewed in the first chapter and it was shown that in outpatient therapy, therapists are differentially effective, i.e. some therapists have better outcomes with their patients than others (chapter 1.1). However, most studies on therapist effects have been conducted in outpatient settings. Inpatient psychotherapy differs from traditional psychotherapy in several ways, as patients are confronted with multiple therapeutic figures on ward in contrast to the dyadic outpatient setting. Apart from one pilot study (Schauenburg et al., 2005), there are no empirical investigations on therapist effects in inpatient therapy. It is not known to what degree the individual therapist in inpatient therapy influences treatment outcome and what characteristics of inpatient therapists are related to positive outcomes (chapter 1.3). The first study is therefore designated to the investigation of therapist effects in inpatient therapy. The main research question asks, if therapists differ in the outcomes of their patients after inpatient therapy, i.e. if some individual therapists are more effective than others. In addition, therapist effects on alliance ratings will be investigated. As previous studies have shown that the therapist variance in alliance ratings is influential for outcome, it is of interest whether therapists in inpatient therapy differ in their alliance qualities. Connecting alliance and outcome ratings, the final research question for the first study asks, whether therapists are differentially effective with regard to alliance ratings, i.e. if a positive alliance will be predictive for outcome in all therapists or if the relation between alliance and outcome is stronger for some therapists than for others.

2. Open questions for study 2: interpersonal problems

Specific characteristics of psychotherapists that influence outcome and alliance are mostly interpersonal variables, while observable “objective” variables exert little influence (chapter 1.2). Predominantly because therapists’ interpersonal variables had been influential predictors in the context of outpatient therapy, but also because therapist differences are likely to be explained by therapist variations in alliance formation, two theoretical approaches were chosen that conceptualize behavior in relationships: interpersonal theory (study 2) and attachment theory (studies 3 and 4). Chapter 2 reviewed basic concepts of interpersonal theory based on Sullivan (1953) and Leary (1957). Interpersonal behavior can be described with two dimensions: affiliation and control. Previous studies in outpatient psychotherapy have investigated their influence on alliance and outcome of psychotherapy. Most studies found a positive influence of patient affiliation on symptomatic improvement, while findings on patient control were less consistent. In addition, the influence of patients’ interpersonal dimensions seems to depend on the type of therapeutic treatment (chapter 2.1). Studies on the influence of *therapists’* interpersonal dimensions point to a negative influence of low therapist affiliation, i.e. hostility and coldness (chapter 2.2). However, only few studies have been published on the therapists’ side, leaving room for further research in order to better understand the influence of therapists’ interpersonal dimensions on therapeutic outcome. Following previous findings from Kiesler & Watkins (1989) and Andrews (1990), who identified specific matching patterns of therapists and patients related to alliance (and outcome, resp.) as well as based on the theoretical propositions of Kiesler (1983), the influence of interpersonal dimensions are investigated more adequately, if affiliation and dominance of both interaction partners are considered together.

The second study is therefore designated to investigate the influence of patients’ and therapists’ affiliation and control in inpatient psychotherapy. Patients’ and therapists’ interpersonal traits are assessed with the Inventory of Interpersonal Problems (Horowitz et al., 2000) and related to global alliance ratings and pre-post symptomatic outcome. The first research question pertains to the direct influence of patients’ affiliation and control on outcome in inpatient psychotherapy. Does the nature of patients’ interpersonal problems influence their symptom improvement during inpatient psychotherapy? Based on previous studies, it is expected that high affiliation (friendliness) is associated with both better alliances and outcome. The second research question concerns the influence of therapists’ interpersonal dimensions as well as a possible interaction effect between patients and therapists’ dimensions. This is a

test of Kiesler's complementary hypothesis, proposing that moderate deviations from similar affiliation and opposite control might help to change problematic patterns of patients. The research question for the interaction hypothesis is then: are some matching patterns between patients and therapists interpersonal control dimension more successful than others? In addition, based on the results of the Vanderbilt psychotherapy study (Henry et al., 1993), a positive main effect of therapists' affiliation dimension is expected on both alliance and outcome.

3. Open questions for study 3 and 4: attachment theory

The second theoretical approach chosen for investigation is attachment theory based on the works of Bowlby (1988) and Ainsworth (Ainsworth et al., 1978). Chapter 3 described the major attachment classifications obtained from the Adult attachment interview (Main, Goldwyn, & Hesse, 2003): secure-autonomous, insecure-dismissive, insecure-preoccupied and unresolved. A core concept of attachment theory is the secure base function of an attachment figure that allows the individual to explore the world outside of the attachment relationship. This concept applies for attachment relationships between mother and child as well as between adult couples (chapter 3.1). Studies on parental care giving showed that care giving behavior of mothers depended on their own attachment states of minds and similar results were found for couple relationships between adults. Secure base behavior also seems relevant for psychotherapy, as therapists are hypothesized to function as a secure base to their patients (chapter 3.2). Only few studies have investigated the influence of therapists' attachment representations in psychotherapy and no such studies have been conducted in the context of inpatient psychotherapy.

The third and the fourth study are therefore designed to investigate the influence of therapists' attachment representations in inpatient psychotherapy. Therapists' attachment representations are assessed with the Adult Attachment Interview. The design of the third study is comparable to the second study, as the influence of therapists' attachment representation on outcome and global alliance ratings are tested. However, the patient variables that are included differ from the second study. The focus of the third study is on the main effects of therapists' attachment representations. Therefore, no attachment variables of patients were examined. The first research question for the third study was, if therapists' attachment representations influence the quality of the therapeutic alliance in a global rating. The second research questions pertained to outcome and asked, if therapists attachment representations are able to explain significant shares of three different outcome measures.

Therapists' attachment representations are hypothesized to exert their influence on therapeutic outcome mainly via the therapeutic alliance. The measurement of alliance quality in retrospect (as performed in studies 2 and 3) brings about some limitations, because retrospective alliance ratings are likely to be confounded with outcome (Tang & De Rubeis, 1999). In addition, a global alliance rating captures only a broad and general impression of therapists' ability to establish positive working relationships with their patients throughout different phases of therapy. One aspect that deserves closer attention is the temporal development of alliance over time, as high alliance ratings in early phases of treatment have been related to positive outcomes in other studies (Martin et al., 2000). The fourth study was therefore designed to evaluate the influence of therapists' attachment representations on alliance formation more closely. A subset of the therapist sample that had been investigated for study 2 and 3 was analyzed for differences in the temporal formation of the therapeutic alliance over the course of inpatient psychotherapy. The first research question for the fourth study was whether therapists vary in the development of alliances over time, i.e. if the form of "alliance curves" of their patients differs. The second research question was directed towards the influence of therapists' attachment representations on these alliance curves.

III EMPIRICAL STUDIES

1. Therapist Variance²

Whether therapists differ in their effectiveness, and if so how much, seems a legitimate question for patients, therapists, and researchers involved in psychotherapy. However, the answer to this seemingly straightforward question appears to be more complex than expected. Several studies have been published that investigated therapist effects in outpatient therapy (e.g., Elkin, Falconnier, Martinovich, & Mahoney, 2006; Kim, Wampold, & Bolt, 2006; Lutz, Leon, Martinovich, Lyons, & Stiles, 2007; Okiishi et al., 2006; Wampold & Brown, 2005). These studies report contrasting conclusions, even though in some cases they investigated the same data pool (Elkin et al. 2006; Kim et al., 2006). Several authors stress the importance of therapist effects, whereas more cautious researchers find the empirical evidence for substantive therapist differences sparse (e.g., Elkin et al., 2006). Diverse patient samples have been studied in the search for therapist effects, ranging from treatment for substance abuse to treatment for depression (Elkin et al., 2006; Project MATCH Research Group, 1998). Some studies were published on data obtained from randomized clinical trials, which were reanalyzed for therapist effects (e.g., Kim et al., 2006). Several problematic issues arise with these studies: The number of participating therapists is often small, patients are very homogeneous, and therapist manual training is likely to reduce variability in therapist behavior. Accordingly, there has been a call for naturalistic studies to estimate the magnitude of therapist effects with greater precision (Wampold & Brown, 2005). In addition to their higher clinical representativeness, naturalistic studies on therapist effects potentially have the advantage of encompassing a considerably greater number of therapists studied (e.g., Okiishi et al., 2006). The empirical effect sizes reported for naturalistic studies are significant, but moderate. Wampold and Brown (2005) reported that about 5% of preoutcome and postoutcome variance is due to therapists, whereas the study by Lutz et al. (2007) attributes 8% of the total variance and 17% of patient improvement to therapists.

Although numerous studies have examined therapist differences in outcome, studies on therapist differences in alliance are sparse. Hatcher, Barends, Hansell, and Gutfreund (1995) reported therapist effects up to 29% of the alliance variance, but therapist effects dif-

² This chapter has been published as original article in the *Journal of Clinical Psychology* (Dinger, Strack, Leichsenring, Wilmers, & Schauenburg, 2008)

ferred due to different instruments and when patient-rated alliance measures were considered, therapist effects were considerably smaller.

We chose to investigate therapist effects in a naturalistic inpatient setting with a diverse patient sample with a high degree of comorbidities. A central distinction between inpatient and outpatient psychotherapy is the multiple relationships a patient experiences on the unit. The staff takes an active part in the treatment of

inpatients. In this study, the staff included nurses, nonverbal therapists (art- and body-oriented therapists) and social workers. In addition to dyadic psychotherapy with their individual therapist, patients receive different group treatments and socialize with their fellow patients during recreation time. The effectiveness of the complete “package” of typical inpatient psychotherapy has been demonstrated empirically (Franz et al., 2000), but the weighting of specific ingredients remains difficult. Kordy, von Rad, and Senf (1990) compared a mere group inpatient treatment with a combined group and individual treatment, where patients evaluated all therapeutic components retrospectively. The perceived helpfulness of all other components decreased when patients received individual therapy, and individual therapy was rated as especially helpful from most patients, indicating that individual psychotherapy remains important in a multidimensional inpatient setting. To our knowledge, the only published study on therapist effects in inpatient therapy is a pilot study of our research group, published in German. The nine therapists in the pilot study differed significantly in outcome and alliance ratings (Schauenburg, Dinger, & Strack, 2005). The therapist effect on patient-rated outcome in the pilot study was as high as other studies have reported for outpatient therapy (9% of variance). This is surprising for an inpatient setting where many factors contribute to therapeutic success. The therapist effect on patient-rated alliance (with the individual therapist) was even larger. The observed differences were greater when therapist-rated measures were considered. Therapist characteristics (age, gender, professional experience, therapeutic orientation) were not predictive for outcome, and there was only a small association between gender and alliance (female therapists had slightly better alliances). As the sample size of the pilot study was very small (nine therapists, each therapists brought in between 13–56 patients), a larger sample is necessary to sufficiently investigate therapist effects in an inpatient therapy setting.

Based on the pilot study, significant therapist differences on outcome are expected for inpatient therapy. Given the setting differences as described above, we expect the magnitude of therapist outcome variability to be smaller in this inpatient sample compared to findings from outpatient therapy, because more therapy components contribute to therapeutic success.

We also expect a larger therapist effect, when therapists themselves are asked to rate their patients' impairment compared to patient ratings. In addition to "real" therapist effects on outcome, some therapists might tend to overestimate their patients' success, whereas other therapists might be more cautious. These possible rating tendencies are likely to enlarge therapist effects.

Patient ratings of the therapeutic alliance with their individual therapist are expected to be therapist-specific and relatively independent of the inpatient setting in which the individual therapy takes place; we therefore expect a larger therapist effect on alliance ratings than on outcome ratings. In addition to this, therapists may not only differ in the quality of the therapeutic alliance they establish with their patients, but also in the predictive impact a positive alliance has on outcome.

Our main research questions were:

1. Do outcome and alliance ratings vary between therapists in inpatient psychotherapy? To answer this question we wanted to know specifically:

- a. Are there significant therapist differences in three different dependent variables (patient and therapist rated impairment at discharge and patient rated alliance)?
- b. How large is the magnitude of these variations, i.e., how much variance of outcome/alliance ratings is explained by therapists?
- c. As impairment severity is important in judging treatment outcome, are therapists differentially effective with regard to pretreatment impairment (i.e., when using prescores as predictors of postscores, is there significant variation of regression coefficients for prescores between therapists)?

2. Does the predictive influence of the alliance on outcome vary between therapists, i.e., when using alliance as predictor of outcome, is there significant variation of regression coefficients for alliance between therapists?

Method

Setting

All patients were treated with psychodynamically oriented inpatient psychotherapy in one of three participating inpatient psychotherapy clinics in Germany. The medical system in Germany allows inpatient psychotherapy for patients with severe neurotic and personality disorders who are believed to profit more from the highly structured inpatient setting than from a

less frequent dyadic outpatient psychotherapy. Inpatient psychotherapy typically includes individual psychotherapy, group psychotherapy, art- and body-oriented therapies, (disorder-) specific group treatments with qualified nurses and daily interactions with other patients, nurses, and therapists on the unit. Patients in this study received individual psychotherapy (1–3 times per week) as well as complementing therapeutic elements.

Sample

Patients and therapists from three inpatient psychotherapeutic clinics in Germany were studied. Therapists were included if they had treated a minimum of 10 documented patients with symptom assessment before and after therapy. Table 1 depicts therapist characteristics.

We included only those patients who did not change their individual therapist over the course of treatment. The resulting 2.554 patients were severely disturbed before treatment: the symptom load was quite high at intake (Global Severity Index pre therapy $M=1.40$, $SD=0.66$) and significantly lowered at discharge (Global Severity Index post therapy $M=0.87$, $SD=0.64$; $d_{pre-post}=.80$). The distribution of clinical International Classification of Diseases-10 (ICD-10; World Health Organization, 1990) diagnoses, as well as age and gender of patients are depicted in Table 2. Unfortunately, complete medication records were available for only one clinic ($N=376$ patients). The following statistics apply only for this subsample: in the clinic in question, 71.3% of patients took some form of medication at intake (43.6% took psychotropic drugs), and 82.8% took some form of medication throughout therapy. Psychotropic medica-

Table 1.
Therapist sample (N=50)

	N	%
Professional background: Physician	41	82.0
Psychologist	9	18.0
Still in postgraduate training	16	32.0
Therapeutic orientation*: psychodynamic	27	58.7
psychoanalytic	14	30.4
family/systemic	3	6.5
other	2	4.4
Gender: female	23	46.0
	M	SD
Professional experience (in years)	9.9	8.29
Age (years)	40.3	8.22
Caseload (mean number of patients per therapist)	51.1	32.7

Note. * $N=46$ due to lacking data

Table 2.
Patient sample (N=2554)

	%	
Diagnosis	Affective disorders	63.6%
	Personality disorders	40.9%
	Anxiety disorders	28.5%
	Adjustment/Stress disorders	24.6%
	Eating disorders	18.3%
	Somatoform disorders	18.0%
	Obsessive-Compulsive disorders	4.9%
	Psychotic disorders	2.7%
Gender: Female		51.7%
	M	SD
Age in years	37.9	11.86

tion was reduced for 12.9 % of patients during treatment. At discharge, 65% took some form of medication and 38.6% of patients took psychotropic drugs.³

Measures

Outcome ratings were obtained both from the patient's and the therapist's perspective. The Symptom Checklist-90 Revised (SCL 90-R; German version, Franke, 1995) was administered at the beginning and termination of therapy. The Global Severity Index (GSI) is an internationally accepted outcome measure and was used here as primary outcome measure from the patients' perspective. The GSI measures overall symptom distress; its reliability and validity has been demonstrated in numerous studies. A validation study in a large representative German population sample replicated the scale's high internal consistency (Hessel, Schuhmacher, Geyer, & Brähler, 2001).

Therapists also routinely evaluated their patients' impairment at the beginning and termination of therapy with a common German measure, the Impairment Score (IS). Therapists rate their patients' impairment in psychological, sociocommunicative, and physical functioning on a 4-point scale. The total score can be interpreted as global impairment from the therapist's perspective. Interrater reliability measures range from satisfactory to excellent for the total score (Kendall's W 5.82 for five raters; intraclass correlations range between .89 and

³ In the subsample with medication records, psychotropic medication was not related to therapist outcome differences.

.97 for different samples) and good concordance with similar measures has been reported (Schepank, 1995).

Alliance ratings from patients were obtained at termination of therapy with the Helping Alliance Questionnaire (HAQ; German version, Bassler, Potratz, & Krauthauser, 1995). The HAQ consists of 11 items, which are answered on a 6-point scale. The mean was taken as measure of overall rated alliance. Satisfactory construct validity and adequate reliability has been reported for the German version (Cronbach's $\alpha=.89$; Bassler et al., 1995). The HAQ ratings were used as a dependent variable in a first step, and as a predictor of outcome, in a second step.

Statistical Procedure

The data show a nested structure (patients nested within therapists). To determine the influence of therapists on outcome and alliance, we computed random effect models on two levels (level 1: patients, level 2: therapists). Data analyses were conducted with HLM 6.02 software (Raudenbush, Bryk, Cheong, & Congdon, 2004).

To answer our first research question, three models were tested.² For the alliance score (HAQ) we computed an "intercept only model" without any explanatory variables. The variance proportion due to therapists was computed on the basis of variance estimates obtained from the multilevel regression analysis. For both outcome measures (GSI, IS) we used the postscore as a dependent variable on the patient level. In addition to the intercept and the error term, the centered pretherapy score was used to predict the outcome to control for the initial level of severity. The intercept as well as the prescore slope was allowed to vary randomly between therapists (therapist level). This approach differs from the residualized change score approach that is frequently used in research studies because the effect of initial severity on outcome is allowed to vary between therapists.

To answer the second research question, a fourth multilevel regression model was tested. Here we examined therapists' differences on the association between alliance and outcome. The dependent variable in the model was the GSI termination score, and in addition to the intercept and the error term, the model also included the GSI prescore and the patient-rated alliance (HAQ) as predictors. All predictors were centered around their grand mean.

Results

First Research Question

Differences in outcome and alliance ratings between therapists in inpatient psychotherapy were examined. Table 3 shows the therapist effects on symptomatic outcome and the therapeutic alliance for three dependent measures. Therapist differences were significant for all three measures, but the amount of variance explained by therapists differed for the measures. To interpret the results, it is important to note that no therapist characteristics were included, and that “therapist variance” refers to different outcomes of different therapists. The table also depicts the magnitude of therapist variations. For GSI as symptomatic outcome (patient rating) only 3% of the posttreatment GSI variance was due to therapists. The results for the two outcome measures differed in that therapist mean differences were smaller when patients rated their symptoms themselves. When therapists rated their patients’ impairment, about 16% of the total variance (IS postscore) was due to therapists. Therapists also differed substantially in alliance ratings of their patients: With 33% of variance due to therapists, the therapist effect on alliance seems very strong.

In addition, interaction effects between therapists and pretreatment impairment were examined for the two outcome measures (GSI, IS), depicted in Table 3. For patient-rated symptomatic outcome (GSI) there is a significant interaction effect between therapists and GSI preinfluence, which accounted for 7% of the total variance. This means, that even though on average severe impairment before therapy is associated with higher impairment at termination (a well-known finding), this relation is not consistent over therapists. There was also a significant interaction effect between therapists and pre-treatment impairment when looking at therapist-rated impairment, but this accounted for only 0.8% of variance and is therefore of only marginal relevance. As therapist effects on alliance were obtained from an “intercept only model,” there are no interaction effects between therapists and predictor variables for the alliance measure.

Second Research Question

It was examined whether the predictive influence of the alliance on outcome varied between therapists. The multilevel regression model on GSI postscores (dependent variable) includes—in addition to the GSI prescore and an error term—the patient-rated alliance (HAQ) as a predictor. The results are depicted in Table 4. There were significant therapist effects on the slopes for alliance, accounting for almost 4% of GSI outcome. Compared with the

Table 3.
Therapist differences on outcome and alliance measures (multilevel regression analyses)

dependent variable	random effects	variance component	df	χ^2	p	% of total variance
GSI ** (post)	therapist mean variance*	0.009	49	123.2	<.001	3.3
	therapist slope variance (GSI _{pre} influence)	0.018	49	114.8	<.001	6.5
	patient variance	0.248				90.2
	total variance	0.275				
IS *** (post)	therapist mean variance	0.392	49	426.3	<.001	16.6
	therapist slope variance (IS _{pre} influence)	0.020	49	100.3	<.001	0.8
	patient variance	1.954				82.6
	total variance	2.366				
HAQ **	therapist mean variance	0.471	49	1081.4	<.001	33.7
	patient variance	0.928				66.3
	total variance	1.399				

Note. * therapist mean variance is equivalent to therapist intercept variance; ** rated by patients; *** rated by therapists.

previous model including only GSI pre-score and the error term as predictor, the magnitude of the therapist mean effect is slightly reduced in this model. The overall patient variance is also reduced, due to the variance explained by the interaction effect therapists-by-alliance.

The therapist effect on the predictive influence of the alliance does not challenge the well-known fact that on average a positive alliance is associated with better outcome, but the relation between alliance and outcome does not seem to be the same for all therapists. For some therapists, a positive alliance is more strongly associated with good outcome, whereas for other therapists this relation is less pronounced, or even nonexistent.

We also tested whether possible clinic effects are responsible for therapist differences in outcome and alliance ratings. Even though we found marginal, but significant differences between clinics, the differences between therapists remained stable, indicating that the clinic effects—even though they exist—do not explain the therapist differences in inpatient therapy.

In addition to the described models, we also explored interaction of therapists with patient's age, gender, and diagnostic groups. There were no significant therapist effects on the impact of these variables on outcome, indicating that therapists were equally effective with male and female patients, as well as with patients from different age and diagnostic groups. An exploratory model including therapists' gender, age, and professional experience did not reveal significant influences of these therapist variables.

Table 4.

Therapist outcome differences (GSI post) with alliance included as predictor*

Random effects	Variance Component	df	χ^2	p	% of total variance
therapist mean variance**	0.005	49	99.1	<.001	2.2
therapist slope variance: GSI pre influence	0.018	49	107.2	<.001	7.8
therapist slope variance: HAQ influence	0.009	49	166.4	<.001	3.9
patient variance	0.197				86.0
total variance	0.229				

Note. * rated by patients ** therapist mean variance is equivalent to therapist intercept variance

Discussion

In this naturalistic inpatient psychotherapy setting, 50 therapists of 2554 patients were shown to differ significantly in the therapeutic outcome of their patients as well as in the quality of the therapeutic alliance. Therapist effects on outcome were small when compared with alliance ratings, and were also small when compared with studies on outcome in outpatient therapy (e.g., Lutz et al., 2007). Considering that this study is about inpatient therapy, this is not surprising. As described earlier, in inpatient therapy many elements contribute to therapeutic success in addition to individual psychotherapy. If one assumes that psychotherapists differ in their effectiveness, one would expect that these differences can be compensated partially by the rest of the therapeutic team.

One interesting aspect of the results pertains to the different patterns for mean and slope variance between therapists. Although the therapist mean variation for patient ratings is relatively small, the influence of initial symptom load varies substantially between therapists in this inpatient setting, indicating that some therapists are more successful with severely impaired patients, whereas others reach better results when the patient's symptom load is lower. The reverse pattern can be seen for therapist ratings: As expected, a larger percentage of variance is due to therapist mean differences, but the therapists vary only very little in the pre/postimprovement slopes. If different therapists rate their patients to be equally impaired at the beginning of therapy, the improvement they see at the end of treatment will be similar. We suspect that this reverse pattern can be attributed to the therapist perspective. Classical social psychological studies demonstrated a strong expectancy effect on evaluation in multiple settings (Rosenthal & Rubin, 1978). If therapists expect their initially highly impaired patients to remain severely disturbed, this selffulfilling prophecy may be responsible for the lack of slope variation.

The large therapist differences found for the therapeutic alliance in this inpatient setting also seem plausible. When asked for their evaluation of the therapeutic relationship, patients were asked to rate only the relationship to their individual therapist. If therapists differ in the quality of their therapeutic work, one would assume greater differences in the therapist-specific alliance ratings than in the global outcome rating. Compared with the study by Hatcher et al. (1995), the therapist effect we found for patient-rated alliance were rather large. Our results from inpatient therapy indicate that therapist greatly influences the alliance and that researchers interested in therapist effects should therefore include alliance measures.

The impact of the therapeutic alliance on outcome also varied between therapists. In most research studies on process variables, therapist effects are not taken into account. Our findings from an inpatient setting indicate that the influence of this well-known process variable can differ between delivering psychotherapists. Even if a positive therapeutic alliance is generally helpful, exactly how helpful it will turn out to be, also depends on the therapist. This finding produces new questions: What do patients and therapists do when their therapeutic alliance is of low quality to ensure treatment success? Do therapists have different “strategies” for helping their patients even though they work under the same theoretical framework (e.g., are some therapists more relationship-oriented than are others)? For inpatient therapy, it seems likely that patients can compensate low-quality alliances with their individual therapists by forming helpful relationships with other people on the unit. Nevertheless, the question which therapists have higher alliance-outcome correlations than their colleagues remains interesting.

This study adds data to an ongoing discussion on therapist effects. Our data extend the general finding of therapist differences on outcome to inpatient psychotherapy, although therapist effects in this naturalistic inpatient setting are smaller than those reported by previous studies for naturalistic outpatient therapy (Lutz et al., 2007; Wampold & Brown, 2005). We also reported substantial therapist effects for alliance ratings in inpatient therapy, which is a novel finding and will need replication in future studies with different samples.

Now that several studies on therapist effects in a variety of settings and with quite diverse samples have been published, some questions arise again. What are the clinical implications of the finding that psychotherapists differ in their therapeutic effectiveness? As in a previous study, neither the therapist’s professional experience nor the variables age or gender were able to explain therapist differences in this study. Only few previous studies have been successful in isolating specific therapist variables that influence therapeutic outcome in a

meaningful way (Beutler et al., 2004). We agree with Lutz et al. (2007) that future studies should concentrate on differential effectiveness of specific patient–therapist matching, even though large datasets will be necessary to derive conclusions that can be transferred into graduate training programs and supervision. It seems feasible that such studies can contribute to an improvement in patient–therapist assignment and enhance outcome for a number of patients seeking help through psychotherapy.

2. Interpersonal Problems⁴

The patient_therapist interaction in psychotherapy is viewed as crucial to psychotherapy by all therapeutic schools, and the therapeutic alliance has been shown to predict therapeutic success in a variety of clinical settings. Several studies on the interaction process in psychotherapy have focused on two dimensions of interpersonal behavior: affiliation and control. Both dimensions evolved from a large body of empirical research on interpersonal behavior (Kiesler, 1983). In unstructured situations, people tend to reciprocate a similar level of affiliation: A person who is treated in a friendly manner is more likely to be friendly in return, and, likewise, hostility will evoke hostility. At the same time, complementarity applies for control: Dominant behavior leads to submissive behavior of the interaction partner and vice versa. This interaction pattern seems relatively stable and can be found in long-term relationships (Kiesler, 1983; Markey, Funder & Ozer, 2003; Tracey, Ryan, & Jaschik-Herman, 2001). In addition to the situation (i.e., the actual behavior of the interaction partner), behavior in relationships is influenced by interpersonal styles or dispositions. They represent the tendency of a person to act toward others in a certain way more frequently: Some people behave generally more dominantly, whereas others might act friendlier in many situations. The traitlike dimensions of affiliation and control can be measured with the Inventory of Interpersonal Problems (IIP; German version: Horowitz, Strauss, & Kordy, 2000), a self-report instrument that has been widely used in psychotherapy research.

Research in psychotherapy has applied the concepts of interpersonal theory to the therapeutic context. Numerous studies connected patients' interpersonal dispositions with outcome and alliance; fewer studies were devoted to the impact of therapists' interpersonal dispositions. Other studies focused on the identification of specific interpersonal patterns between therapist and patients that foster either therapeutic success or a positive working alliance. Most studies on the influence of patients' interpersonal dispositions reported a positive influence of patient affiliation on treatment outcome. In a study by Schauenburg, Sammet, Kuda, and Strack (2000), patients describing themselves on the IIP as too friendly improved during short-term outpatient psychodynamic therapy. Other studies reported similar results for

⁴ This chapter has been published as original article in *Psychotherapy Research* (Dinger, Strack, Leichsenring, & Schauenburg, 2007)

short-term psychodynamic therapy (Filak, Abeles, & Norquist, 1986; Gurtman, 1996). The influence of patient dominance seems less clear: Whereas some studies failed to find significant influences on outcome (Filak et al., 1986; Schauenburg et al., 2000), others reported a negative relationship between high dominance scores and outcome for inpatient therapy (Davies-Osterkamp, Strauss, & Schmitz, 1996), psychodynamic therapy (Gurtman, 1996), and cognitive-behavioral therapy (Borkovec, Newman, Pincus, & Lytle, 2002). In addition, Schauenburg et al. (2000) found a gender-specific effect of patient dominance on duration of therapy: In a naturalistic setting, submissive male patients received more sessions than dominant male patients, but no dominance effect was found for female patients. Two studies complicate the issue. Whereas Ruiz et al. (2005) did not find any relationships between patients' IIP variables and outcome after controlling for the general level of interpersonal distress in a naturalistic outpatient study, Puschner, Kraft, and Bauer (2004) showed that the influence of patient interpersonal variables varied across different treatments. They found a significant relationship between patient affiliation and outcome only for outpatients in psychodynamic therapy, whereas dominance could not be related to treatment success and neither dominance nor affiliation predicted cognitive-behavioral or psychoanalytic therapy outcome.

Research on therapists' interpersonal dimensions has produced mixed results. Some studies reported negative influences of therapist dominance (Henry, Schacht, & Strupp, 1990; Washton & Stone-Washton, 1990) and positive influences of affiliation (Henry et al., 1990). A contradicting finding was that confronting and unfriendly therapists obtained the best results with their alcohol-dependent patients (Miller, Benefield, & Tonigan, 1993). Such diverging results in different clinical settings direct attention to possible interaction effects between patients' and therapists' interpersonal variables. Kiesler (1983) argues that, instead of the normal interaction pattern of similar affiliation and complementary control, a deviation from this pattern is helpful in psychotherapy. According to him, a rigid interpersonal style can be part of a patient's psychopathology. Optimal change then is facilitated by frequent interpersonal acts that violate the regular interpersonal pattern and cause the patient to rethink his or her interpersonal behavior. This argument was supported by an early study (Dietzel & Abeles, 1975) in which successful psychotherapies were characterized by a deviation from similar affiliation and complementary control in the middle phase of the therapy. Only in the beginning and final periods were pleasant, alliance-improving patterns of similar affiliation and complementary control observed. Two other studies showed that different principles might apply for the working alliance and symptomatic outcome. Kiesler and Watkins (1989) found that the therapeutic alliance from the patient's perspective profited from similar affiliation and

complementary control, but they did not report outcome data. Andrews (1990) showed that high to moderate interpersonal challenge, characterized by a deviation from similar affiliation and complementary control in interpersonal styles of patients and therapists, contributed to a positive outcome. A study (Karno & Longabaugh, 2005) on the treatment of alcohol-dependent patients also demonstrated that less directiveness by therapists improved drinking outcomes of reactant clients, which can be interpreted as a positive influence of complementary dominance dimensions.

Despite numerous previous studies, the findings were not entirely consistent and leave room for further research. In addition, it might be possible that interpersonal influences vary across different clinical settings. In the present study, we investigate inpatient psychotherapy in which all therapists bring in a relatively large number of patients. Direct effects of patients' and therapists' interpersonal dispositions as well as interaction effects of therapist and patient variables are tested for patient outcome ratings.

Therapeutic Alliance

Interpersonal variables are supposed to influence therapeutic outcome by means of the therapeutic relationship between patient and therapist. Most research on the therapeutic relationship is directed toward either determining the impact of the therapeutic alliance on outcome or identifying variables that influence the alliance itself. For several forms of outpatient therapy, numerous studies and metaanalyses have demonstrated the positive influence of a good working alliance on outcome (e.g., Beutler et al., 2004; Hentschel, 2005; Horvath, 2005). The alliance is probably the best researched common factor, and the studies on its effects have contributed to the awareness that common factors are responsible for a reasonable part of therapeutic success in all forms of therapy. Effect sizes are moderate but stable ($d=.21$; Horvath & Bedi, 2002). The influence of the therapeutic alliance in inpatient psychotherapy is a bit more complicated because inpatient therapy usually involves several therapeutic staff members with whom a patient may form different therapeutic relationships. In a study by Barber et al. (2001), alliance quality was not a significant predictor of outcome for patients treated for cocaine use. Nevertheless, empirical studies on more typical inpatient psychotherapy showed that good outcome was associated with better alliances with the individual therapist (e.g., Konzag, Fikentscher, & Bandemer-Greulich, 2000; Konzag, Bandemer-Greulich, Bahrke, & Fikentscher, 2004; Sammet, Staats, & Schauenburg, 2004).

In previous analyses of the present data, we demonstrated that, for patient groups treated by a subsample of the psychotherapists included in the present study, therapists dif-

ferred not only in their patients' improvement but also in retrospective evaluation of the therapeutic alliance, with more variance of the alliance explained by therapists (Schauenburg, Dinger, & Strack, 2005). To investigate how the therapeutic alliance influences outcome, therapist differences in the relation between alliance and outcome should be taken into account.

Objective

In the present study, we tested direct as well as interaction effects of interpersonal dispositions (affiliation and control) between therapists and patients as possible predictors of therapy outcome. The therapeutic alliance was included as an additional predictor. Furthermore, possible therapist differences in the predictive value of the therapeutic alliance were investigated and related to therapists' interpersonal dispositions of affiliation and control.

Method

Sample

We studied outcome and alliance ratings of 1.513 psychotherapy inpatients who were treated by 31 psychodynamically oriented psychotherapists. Patients were treated either between 1998 and 2004 at the Department of Psychosomatics and Psychotherapy, University Clinic of Göttingen (377 patients, 12 therapists) or between 2001 and 2004 at the Tiefenbrunn State Hospital in Germany (1,136 patients, 19 therapists). The distribution of International Classification of Diseases (10th edition) diagnoses is typical for a German inpatient psychotherapy population, which is characterized by severe, chronic disorders and high comorbidity. The primary diagnoses were affective disorders (72.8%), followed by personality (64.8%), anxiety (46%), and adjustment/stress disorders (45%). Less frequent were eating (24.1%), somatoform (21%), obsessive-compulsive (8.8%), and psychotic disorders (6.1%). Most patients received more than one diagnosis. General symptomatic impairment was quite high at admission (Global Severity Index [GSI] pretherapy $M=1.47\pm 0.65$ SD) and significantly lower at discharge ($M=0.959\pm 0.66$). The patients varied in age from 18 to 79 years ($M=34.6$ years). There were 1.006 (66.5%) women and 507 (33.5%) men. There were some setting differences. We also included data from patients treated at a crisis intervention unit from the Tiefenbrunn State Hospital. The level of distress at admission was similar compared with that for the regular psychotherapy patients, but, as expected, treatment was longer for the regular psychotherapy inpatients ($t_{df=855}=37.3$, $p=.01$), indicating that the psychopathology of the patients treated for crisis intervention might be less severe. Mean treatment duration for regular

psychotherapy inpatients was 13.6 (SD 4.85) weeks compared with 5.9 weeks (SD=2.57) for patients in the crisis intervention unit.

The 31 individual psychotherapists were between 26 and 54 years old ($M=37.4$ years), and gender was equally distributed (15 [48.4%] women, 16 [51.6%] men). Their professional background was mainly medical (27 physicians and three psychologists). Professional experience ranged from 0.1 to 21.5 years ($M=6.6$ years), and each therapist treated between 13 and 182 patients ($M=48.8$). Most of them were psychodynamically oriented (38% psychodynamic, 32% psychoanalytic, 19% systemic_family therapy); some were still in postgraduate psychotherapeutic training (38.7%). Patient assignment to therapists within each clinic was nonsystematic.

Therapeutic Setting

All patients were treated with psychodynamically oriented inpatient psychotherapy in one of the two participating clinics and received individual therapy (one to two times per week) as well as complementing therapeutic elements. The therapeutic team (nurses) as well as other patients play an important role for the therapeutic concept of both clinics. Most patients also received group therapy (twice a week; in many cases the individual therapist also served as group therapist), and art- and body-oriented therapy is available in both clinics.

Instruments

Therapists' and patients' interpersonal problems were assessed with the German version of the IIP (Horowitz et al., 2000). The German form of the IIP consists of 64 items and depicts interpersonal problems on eight scales in a circumplex structure around the dimensions of dominance and affiliation. Reliability scores of the subscales are generally high, with Cronbach's α between .81 and .90. We computed dominance and affiliation scores with ipsative IIP scales as suggested by the authors. Several validation studies showed that the IIP is able to differentiate between separate clinical groups, has prognostic value in different forms of psychotherapy, and is able to relate interpersonal problems to other clinical characteristics (Horowitz et al., 2000).

Therapeutic alliance was measured from the patients' perspective with the German form of the Helping Alliance Questionnaire (HAQ; Bassler, Potratz, & Krauthauser, 1995; original version by Alexander & Luborsky, 1986). The HAQ consists of 11 items, which are rated on a 6-point scale. The mean was taken here as a measure for overall patient-rated alliance. The questionnaire is reliable (Cronbach's $\alpha=.89$), and its common use among German psychotherapy researchers might be an indication of its validity.

Therapeutic outcome was operationalized as change in reported symptoms by patients. For assessment of symptoms, the German version of the Symptom Checklist-90-R (SCL-90-R; Derogatis, German version: Franke, 1995) was used. The 90 items are summarized in the GSI score, which represents the overall symptom level. The GSI is reliable (Cronbach's $\alpha=.97$; Hessel, Schuhmacher, Geyer, & Brähler, 2001), and changes in GSI scores are internationally accepted outcome measures. Because of an initial symptom bias on improvement, we used inverse residual scores as outcome measures. They were derived from a prediction of GSI postscores by prescores in a linear regression model for the patient sample (predicted GSI post-score= $0.05+0.62\times$ GSI pre-score). Residual scores represent the difference between the predicted and the observed posttreatment score. Positive inverse residuals represent relatively high improvement, and negative inverse residuals indicate relatively low improvement.

Evaluation Therapists

Therapists were asked to participate in the study in 2003 and 2004. Those who agreed to participate received several questionnaires shortly thereafter. To guarantee therapists' anonymity, their personal data were assessed by a colleague unknown to the therapists who was working in another city and was not affiliated with either the University Clinic of Göttingen or Tiefenbrunn State Hospital. Second author M.S., also unknown to the therapists and not affiliated with either clinic, assembled patient data and therapist personal data to

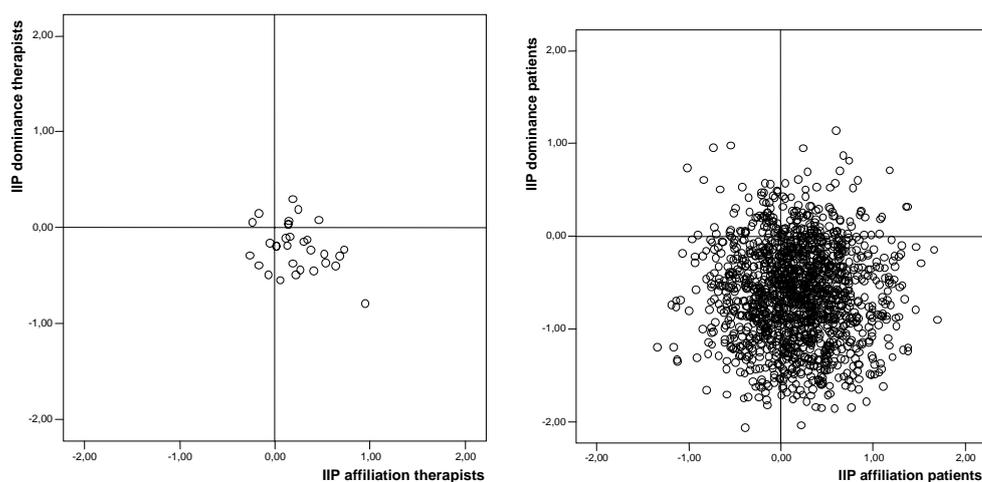


Figure 1. IIP Distribution of therapists (N=31, left) and patients (N=1513, right)

ensure a secure level of anonymity. Several interpersonal variables of therapists were assessed, mainly interpersonal problems and attachment representations. For the present study, only therapists' interpersonal problems, measured with the German version of the IIP (Horowitz et al., 2000), are of interest. Therapists described themselves as slightly more submissive (dominance score=-.20) and slightly more communal (affiliation score=.22; Figure 1).

Evaluation Patients

Patients answered a set of self-report questionnaires at their admission and discharge. These assessments are part of the clinical routine evaluation (e.g., Dally et al., 2005). They were regularly treated in either one of the participating clinics, and all gave informed consent for their data to be used in future research projects. Assessment of patient-reported symptoms took place before and at termination of therapy with the SCL-90-R (see prior discussion). On their last day, patients also retrospectively evaluated their perception of the therapeutic relationship with their individual therapist (HAQ). Along with the routine evaluation before therapy, patients completed the IIP (see prior discussion). Dominance and affiliation scores were computed with ipsative scales analogous to therapist scores. Patients described themselves as submissive (dominance score=-.61) and slightly more communal (affiliation score=.17), which is typical for inpatient psychotherapy patients (see Figure 1).

Statistical Procedure

Patient and therapist data were brought together in a multilevel regression analysis that takes into account the nested structure of the data and the different sample sizes at each level (Hox, 2002). In a first step, variables on the patient level were entered into the model (IIP affiliation and dominance and alliance ratings). In a second step, therapist variables (IIP affiliation and dominance) and interaction effects between patient and therapist variables were added. A new model was then computed with alliance as dependent variable. All explanatory variables on Level 1 (patients) and Level 2 (therapists) were centered on their grand mean. Computations were performed using HLM 6.02 (Raudenbush, Bryk, Cheong, & Congdon, 2004).

Results

Patient-Level Variables

To investigate the influence of patient interpersonal variables and the therapeutic alliance on outcome, the IIP dimensions dominance and affiliation (patients) as well as patients' HAQ ratings were entered into the model. The model stated as follows:

For the Level 1 model (patients):

$$\text{Inverse GSI}_{\text{residuals}} = \beta_0 + \beta_1 \times (\text{dominance}_{\text{patient}}) + \beta_2 \times (\text{affiliation}_{\text{patient}}) + \beta_3 \times (\text{HAQ}) + r.$$

For the Level 2 model (therapists):

$$\beta_0 = \gamma_{00} + u_0.$$

$$\beta_1 = \gamma_{10} + u_1.$$

$$\beta_2 = \gamma_{20} + u_2.$$

$$\beta_3 = \gamma_{30} + u_3.$$

The results are shown in Table 1. The fixed effects show a positive effect of the therapeutic alliance with the individual therapist on outcome. Patient affiliation did not influence outcome ratings in this model, but higher scores on the dominance-submissiveness dimension predicted better outcome. This finding was somewhat surprising because it contradicts those of previous studies. The random effects showed a significant variation in the intercepts of therapists. This difference means that, with all the variance accounted for in the present model, there was still variation between therapists in the intercept (i.e. the therapeutic

Table 1.

Multilevel Regression Analysis with patient variables and Global Severity Index (inverse residuals) as dependent variable

A. final estimation of fixed effects (with robust SEs)

fixed effect	coefficient	SE	~t ratio	df	p
For Intercept1 β_0					
Intercept2, γ_{00}	-0.042	0.0164	-2.56	30	.02
For dominance (patient) slope β_1					
Intercept2, γ_{10}	0.054	0.0231	2.34	30	.03
For affiliation (patient) slope β_2					
Intercept2, γ_{20}	0.012	0.0227	0.55	30	.59
For HAQ (patient) slope β_3					
Intercept2, γ_{30}	0.200	0.0212	9.43	30	<.01

B. final estimation of random effects

random effects	Variance component	SD	χ^2	df	p
Intercept 1, u_0	0.003	0.0533	69.82	30	<.01
Dominance patient slope, u_1	0.005	0.0684	31.80	30	.38
Affiliation patient slope, u_2	0.004	0.0653	22.31	30	>.50
HAQ slope, u_3	0.010	0.0973	117.51	30	<.01
Level 1, r	0.212	0.4600			

Note. HAQ= Helping Alliance Questionnaire

outcome they obtained with a patient with average patient dominance, affiliation, and alliance). There was also a significant variation in the HAQ slope, which means that the relationship between alliance and outcome varied across therapists. Neither the IIP dominance nor the IIP affiliation slope differed between therapists.

Therapist Variables

In a second step, IIP dominance and affiliation of the therapist were entered as predictors. The final model now included patient variables, therapist variables, as well as cross-level interactions between patient and therapist variables. Interaction effects were computed for each patient variable. From the point of interpersonal theory, corresponding therapist and patient dimensions are of special interest. Therefore, only affiliation of the therapist, but not dominance, was added to predict the slope of patient affiliation, and only therapists' domi-

Table 2.
Multilevel Regression Analysis with Patient and Therapist variables and Global Severity Index (inverse residuals) as dependent variable

A. final estimation of fixed effects (with robust SEs)

fixed effect	coefficient	SE	~t ratio	df	p
For Intercept β_0					
Intercept γ_{00}	-0.046	0.0159	-2.87	28	.01
Dominance (therapist) γ_{01}	-0.005	0.0871	-0.06	28	.96
Affiliation (therapist) γ_{02}	-0.108	0.0678	-1.59	28	.12
For dominance (patient) slope β_1					
Intercept γ_{10}	0.053	0.0238	2.22	29	.03
Dominance (therapist) γ_{11}	-0.071	0.0849	-0.83	29	.41
For affiliation (patient) slope β_2					
Intercept2, γ_{20}	0.010	0.0220	0.44	29	.67
Affiliation (therapist) γ_{21}	-0.028	0.0907	-0.31	29	.76
For HAQ (patient) slope β_3					
Intercept2, γ_{30}	0.201	0.0204	9.82	28	<.01
Dominance (therapist) γ_{31}	-0.052	0.0800	-0.65	28	.52
Affiliation (therapist) γ_{32}	-0.081	0.0362	-2.24	28	.03

B. final estimation of random effects

random effects	Variance component	SD	χ^2	df	p
Intercept 1, u_0	0.055	0.0031	65.11	28	<.01
Dominance patient slope, u_1	0.074	0.0055	31.02	29	.36
Affiliation patient slope, u_2	0.068	0.0046	22.13	29	>.50
HAQ slope, u_3	0.098	0.0096	108.52	28	<.01
Level 1, r	0.460	0.2115			

Note. HAQ= Helping Alliance Questionnaire

nance scores were used to predict the slope of patient dominance. For the intercept as well as the therapeutic alliance, both interpersonal dimensions of the therapists were added. The multilevel model then stated as follows:

For the Level 1 model:

$$\text{Inverse GSI}_{\text{residuals}} = \beta_0 + \beta_1 \times (\text{dominance}_{\text{patient}}) + \beta_2 \times (\text{affiliation}_{\text{patient}}) + \beta_3 \times (\text{HAQ}) + r.$$

For the Level 2 model:

$$\beta_0 = \gamma_{00} + \gamma_{01} \times (\text{dominance}_{\text{therapist}}) + \gamma_{02} \times (\text{affiliation}_{\text{therapist}}) + u_0.$$

$$\beta_1 = \gamma_{10} + \gamma_{11} \times (\text{dominance}_{\text{therapist}}) + u_1.$$

$$\beta_2 = \gamma_{20} + \gamma_{21} \times (\text{affiliation}_{\text{therapist}}) + u_2.$$

$$\beta_3 = \gamma_{30} + \gamma_{31} \times (\text{dominance}_{\text{therapist}}) + \gamma_{32} \times (\text{affiliation}_{\text{therapist}}) + u_3.$$

The results are displayed in Table 2. The fixed effects of patient variables remain similar to those obtained in the previous model: Patient dominance and the therapeutic alliance predicted outcome ratings, whereas patient affiliation had no significant influence. Therapists' interpersonal dimensions did not have a significant direct influence on outcome, although a negative influence of high therapist affiliation was close to a trend level. There were no interaction effects of therapist and patient interpersonal dimensions. Neither similarity on the affiliation dimension nor complementarity on the dominance dimension, or deviations from

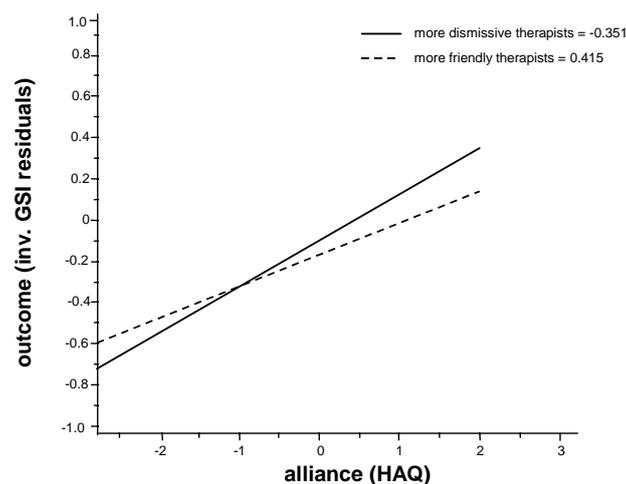


Figure 2. Therapist affiliation influences the relationship of alliance and outcome (lines represent averaged alliance and outcome for lower and upper quartiles of therapist affiliation)

this pattern, influenced symptomatic outcome in this model⁵. There was, however, a negative interaction effect of therapists' affiliation with the HAQ slope. For therapists with low affiliation, who described themselves as too cold, the positive effect of a good alliance on outcome was stronger than for therapists who described themselves as too friendly (Figure 2).

To determine whether this small but significant interaction effect could be explained with a negative relationship between therapist affiliation and patients' alliance ratings, a new model was computed with alliance as a dependent variable. On the patient and the therapist level, IIP affiliation and dominance were included as predictors. The results of this analysis are displayed in Table 3. Contrary to our expectations, only patient affiliation influenced alliance quality, and the interpersonal dimensions of the therapist had no significant influence. The therapists did, however, vary significantly in the alliance quality reported by their patients.

Table 3.
Multilevel Regression Analysis with Patient and Therapist variables and the HAQ as dependent variable

A. final estimation of fixed effects (with robust SEs)

fixed effect	coefficient	SE	~t ratio	df	p
For Intercept β_0					
Intercept γ_{00}	1.205	0.1566	7.69	28	<.01
Dominance (therapist) γ_{01}	0.372	0.4006	0.93	28	.36
Affiliation (therapist) γ_{02}	-0.067	0.3058	-0.22	28	.83
For dominance (patient) slope β_1					
Intercept γ_{10}	0.009	0.0583	0.15	29	.88
Dominance (therapist) γ_{11}	0.127	0.1820	0.70	29	.49
For affiliation (patient) slope β_2					
Intercept2, γ_{20}	0.320	0.1002	3.19	29	<.01
Affiliation (therapist) γ_{21}	0.406	0.2760	1.47	29	.15

B. final estimation of random effects

random effects	Variance component	SD	χ^2	df	p
Intercept 1, u_0	0.699	0.8360	678.85	25	<.01
Dominance patient slope, u_1	0.030	0.1725	27.39	26	.39
Affiliation patient slope, u_2	0.170	0.4124	62.47	26	<.01
Level 1, r	1.047	1.0234			

⁵ Following the suggestion by an anonymous reviewer, we also computed analyses with each of the eight scales (octants) that can be derived from the IIP. We did not find any results that challenged or added substantially to the previous analyses. Interested readers can obtain the results of these analyses from Ulrike Dinger.

Discussion

This study investigated influences of patients' and therapists' interpersonal dispositions as well as differential effects of the therapeutic alliance in inpatient psychotherapy. Therapists' interpersonal dimensions did not directly influence alliance or outcome, whereas more dominant (or less submissive) patients showed a trend toward better improvement during therapy and more affiliative patients reported better alliances. Good therapeutic alliances were related to positive outcome, but the relation between alliance and outcome differed between the participating therapists. Good alliances were especially helpful when the therapist described him- or herself as too cold (dismissive).

Interpersonal Problems and Alliance

The results on the influence of interpersonal problems contradict some findings and postulations found in the literature. First, the therapist effect on alliance was not explained by the therapists' interpersonal problems. We were surprised to find no significant influence of therapists' interpersonal variables on alliance quality, because a previous study by Hersoug, Hoglend, Monsen, and Havik (2001) reported a negative effect of low therapist affiliation on alliance for psychodynamic outpatient therapy. Even though the patient's interpersonal problems could be related to alliance, there were no interaction effects between patient and therapist variables. We were, therefore, not able to replicate Kiesler and Watkins's (1989) finding that the therapeutic alliance profited from similar affiliation and complementary control between patient and therapist.

Interpersonal Problems and Outcome

In general, studies relating IIP dimensions to therapeutic outcome have not been consistent in their results, and some studies have reported difficulties in predicting outcome with IIP dimensions (e.g. Puschner et al., 2004). If the relation between IIP dimensions and treatment outcome depends on the form of therapy used, our results indicate that, compared with outpatient therapy findings, different IIP profiles seem to be helpful for inpatient therapy success. The positive effect of a higher score on the dominance-submissiveness dimension might be explained by the specific distribution of dominance-submissiveness in this sample. Because patients described themselves as mostly submissive, the degree of submissiveness might be more relevant than actual dominance. Those patients who described themselves as even more submissive than the rest of the sample might have such a profound lack of assertiveness that they were not able to benefit from treatment. This effect might also be due to the group therapy that patients received in addition to their individual therapy. Horowitz,

Rosenberg, and Bartholomew (1993) indicated that more dominant patients might be able to profit more from group therapy. Contrary to this hypothesis and our results is the finding from Davies-Osterkamp, Strauss, and Schmitz (1996) that patients who tended to be domineering and vindictive benefited less from psychoanalytically oriented inpatient group therapy.

The positive effect of affiliation on outcome that has been found for outpatient psychotherapy (e.g. Schauenburg et al., 2000) does not seem to apply for inpatient therapy, as our results and those of Davies- Osterkamp, Strauss, and Schmitz (1996) indicate. We were surprised by this finding, because the positive effect of affiliation on alliance and outcome has been relatively stable in other forms of therapy. Contrary to previous investigations, we included the therapeutic alliance as an additional predictor in our regression model. We chose to do so mainly because of the well-known relation between alliance and outcome. In addition, we reasoned that possible effects of interpersonal dispositions are closely related to the alliance. It seems plausible that the positive effect of affiliation on outcome described in previous studies is mediated by the therapeutic alliance. Patients who described themselves as friendly in the IIP reported better alliances than those who described themselves as rather dismissive. If friendly patients have better alliances and better alliances lead to better outcomes, the relation between affiliation and outcome becomes clearer.

To our knowledge, no other study has investigated therapists' interpersonal dimensions in inpatient therapy. Our results imply that, in this specific context, therapist affiliation and dominance, as measured with the IIP, do not seem to affect the outcome of the patients directly. Although the relation of the therapeutic alliance and the symptomatic outcome shows that the alliance with the individual therapist is important for patient improvement, therapists' interpersonal dimensions predicted neither patient improvement nor alliance quality. At this stage, we have to conclude from our results that therapists' dominance and affiliation scores obtained from the IIP predict neither therapy outcomes nor the therapeutic alliance in inpatient psychotherapy.

We were especially interested in identifying specific interpersonal patterns between patients and therapists that facilitated better outcome, but we did not find any interaction effects between patients' and therapists' IIP variables. Other studies have previously presented results that indicated a positive effect of patient and therapist complementarity, at least for the dominance dimension. The Vanderbilt psychotherapy studies demonstrated the positive effect of so-called positive complementarity of interpersonal behavior on outcome. Interactions between therapists and patients were observed in the third session and analyzed with Benjamin's

structural analysis of social behavior. Therapists who behaved complementarily to their patients on the dominance dimensions and were generally affiliative were more successful than less affiliative therapists (Henry et al., 1990). A microanalytic observation study on the dyadic affective interaction process also found beneficial complementarity effects, although the authors did not assess the interpersonal dimensions of affiliation and dominance (Rasting & Beutel, 2005). If a therapist in a videotaped intake interview displayed a predominating affect similar to the main affect displayed by the patient, the symptomatic outcome was less successful compared with therapists whose predominating affects differed from those of their patients in the intake interview. In another study on the effects of psychosocial treatment for alcohol-dependent patients, complementarity in directiveness and reactance improved drinking outcome (Karno & Longabaugh, 2005).

Therapist Professionalism

Why were there no complementarity (or other matching) effects of patient and therapist interpersonal dispositions in this study? There are several possible explanations for the small impact of therapists' interpersonal dispositions, either direct or in interaction with the patients' disposition, on outcome. It is possible that the instruments we used did not capture therapy-relevant aspects of interpersonal behavior. The IIP aims at identifying general, trait-like interpersonal problems over many situations. The questions are therefore very general and ask for a person's view of his or her own behavior in relationships. The therapeutic setting is a very structured and, from the therapists' perspective, professional context. It is possible that more specific instruments are necessary to detect influences of therapists' relationship dispositions on therapeutic outcome and alliance. Of course, it is also possible that the professional and mostly well-trained therapists were successful in adapting their behavior to their patients' needs independent of their own relationship dispositions.

Inpatient Therapy

A different interpretation for the low influence of therapists' IIP dimensions on patients' improvement is related to the specific context of inpatient therapy. This specific form of psychotherapy involves several staff members and enables a patient to compensate a possible interpersonal mismatching with the individual therapist. Patients may form healing bonds with other professionals (nurses, art- or body-oriented therapists) and with their fellow patients. Because group therapy is an integral part of the therapeutic concept in inpatient therapy, the relationships that the patients form with each other and with the group as a whole are probably as important as the therapeutic alliance with the individual therapist. Although the

effectiveness of the complete package of inpatient therapy has been empirically demonstrated (Franz et al., 2000), it remains difficult to weigh the therapeutic effects of the components. Kordy, von Rad, and Senf (1990) compared a pure group therapeutic inpatient treatment with a combined setting in which patients received individual as well as group therapy. Patients retrospectively evaluated all therapeutic components. The patients in the combined treatment described the individual therapy as especially helpful and the perceived importance of all other components, including group therapy, as significantly lower than individual therapy. They also found all components (except individual therapy) less helpful for their overall improvement than the patients receiving only group therapy. The authors did not, however, find any substantial correlations between the perceived importance of therapeutic components and more objective outcome in standardized questionnaires.

Importance of Alliance Varies Between Therapists

An interesting aspect of this study is the finding that the impact of the patient-rated therapeutic alliance on outcome differed between therapists. Because it is often difficult to relate therapist variables to therapeutic outcome, even for outpatient therapy, the interaction of therapist and patient variables ought to be studied in more detail (Beutler et al., 2004). The variance between therapists does not challenge the general notion of a helpful effect of alliance on outcome (and Figure 2 shows that this effect applies for all therapists), but exactly how helpful the alliance is also depended on the therapist's personality. In this study, good alliances were especially helpful for therapists who described themselves as too cold in the IIP. Patients of more dismissive therapists did not, however, report generally lower levels of alliance quality. The interaction effect might be due to a greater variation in alliance quality: It is possible that, from the patients' perspective, alliances with less affiliative therapists varied more toward the extreme ends, so that they established extremely positive and helpful alliances with some patients and quite bad (non-helpful) alliances with others.

Limitations

Therapy outcome and therapeutic alliance were assessed by self-report questionnaires. Although the outcome evaluation has been adjusted to the pre-treatment symptom influence, the alliance was only evaluated retrospectively at discharge and contained relatively unspecific global ratings. They might very well be influenced by social-cognitive biases. A specific constraint of inpatient psychotherapy is the blending of impressions and relationships with several important people. At termination of therapy, the 377 patients from the university clinic rated the helpfulness of different members of the therapeutic team (individual therapist, group

therapist, art therapist, body-oriented therapist, nurses, other patients). A factor analysis of these ratings extracted only one underlying factor (32% explained variance), indicating that patients were not very successful in differentiating between different therapeutic figures. For the present study, the ratings of the individual therapy specific alliance might, therefore, be influenced by therapeutic relationships the patient experienced with other members of the therapeutic team (halo effect).

A second problem, shared by all retrospective evaluations of alliance, is the possible and likely positive influence of symptomatic improvement on alliance ratings. Tang and DeRubeis (1999) were able to show that sudden gains in depressive symptoms were followed, but not preceded by, improvements in alliance. We cannot rule out the possibility that the relation between alliance and outcome reported in this study might have been caused by the improvements patients experienced through other mechanisms and that they attributed, in retrospect, to their individual therapist. Our impression from an additional study we are currently preparing with a smaller subsample of patients who completed weekly alliance and symptom reports is, however, that alliance assessed over the entire course of therapy is also related to outcome, indicating that the possible influence of outcome on retrospective alliance ratings might not entirely be due to biased ratings. Despite the reciprocal influence that alliance and outcome can have on each other, the results show that the relation between alliance and outcome is different for the participating therapists. Even if the alliance rating is to some extent determined by the symptomatic improvement of patients, it remains an interesting question why this is not the case for all therapists.

In this study, we decided to assess therapy outcome and alliance by patient evaluations only. Therapist ratings were not included. There has been some discussion surrounding the validity of clinical ratings and a pledge to assess therapy outcome from the patient's as well as the therapist's perspective (Schulte, 1993). However, more recent clinical research showed that therapists' ratings of therapeutic outcome can be biased by irrelevant information (Meyer & Schulte, 2002). Fitzpatrick, Iwakabe, and Stalikas (2005) showed that diverging perspectives between therapist and patients on the therapeutic alliance did not negatively influence therapeutic impact on the session level. In their study, only patient-rated alliance was able to predict positive therapeutic impact, whereas therapist-rated alliance did not correlate significantly with this outcome variable. In our study, patient-reported symptom change (GSI residuals) correlated only weakly with a change in therapists' global ratings of impairment ($r=.24$), so we decided to report only patient ratings. Therapists and patients did, however,

agree more about their therapeutic relationship, because ratings of alliance correlated substantially higher in our sample ($r=.59$).

Apart from the limitations discussed so far, this study shows some major advantages. We presented data of 31 therapists and 1,513 patients. In this study, the average number of patients treated per therapist was relatively large compared with other studies on therapist effects. We also used advanced multilevel regression techniques for computations, which enabled us to assess effects on the therapist and patient level without having to aggregate or disaggregate data.

Implications for Future Research

The results indicate that the therapeutic alliance is important in inpatient psychotherapy and that its effect on outcome differs among therapists. We used retrospective alliance evaluations, but it seems worthy of future investigations to test how interpersonal variables affect alliance formation at different time points in general and how early, middle, or late alliances predict outcome depending on both therapists' and patients' interpersonal profiles. Effects of therapists' interpersonal dispositions might not be reflected in the global GSI improvement scores of their patients, but we still believe they are relevant for therapeutic behavior. It seems feasible to study the effects of interpersonal variables on actual interventions in which no blending with the effects of other therapeutic figures is expected.

3. Attachment

The analyses for the third and the fourth study are presented in separately so that each study can be understood. There are some minor repetitions in the theoretical part with regard to the influence of therapists' attachment representation on outcome in psychotherapy. However, while the importance of therapist attachment in psychotherapy on outcome is elaborated in greater detail for the third study, the focus of the fourth study is clearly on the temporal development of alliance ratings.

3.1 Pre-post changes and global alliance⁶

The person of the therapist has attracted attention in psychotherapy and psychiatric research for a long time (e.g. Holt & Luborsky, 1955; Fleming, 1960). Even though current developments emphasize therapeutic techniques and manuals, there is still a common interest of researchers from all therapeutic orientations in therapist effects. Beutler et al. (2004) describe that sociodemographic characteristics of therapists (age, gender) as well as professional experience or the amount of training exert only little influence on therapy outcome. However, certain interpersonal characteristics like empathy, warmth, supportiveness, dominance and others are influential therapist variables.

Among the many interpersonal constructs known in personality psychology, Bowlby's attachment theory seems to be a promising approach for further studies in this field. It focuses on relevant interpersonal experiences as well as affective patterns and psychological capacities in later life. It proposes that early relationship experiences influence not only significant attachment relationships later in life, but also care giving behavior towards others (Bowlby, 1988). It is well known that attachment representations of adults can be differentiated into three organized patterns: secure-autonomous (F), insecure-dismissing (Ds), insecure-preoccupied (E) and one additional disorganized category: unresolved (Main, Goldwyn, & Hesse, 2003). Securely attached individuals present their past experiences in a coherent way. They generally value close intimacy and have lasting relationships. As caregivers, they are able to adapt their own behaviour towards the needs of others. Secure parents are generally more responsive and react more quickly to their children's needs (De Wolff & van Ijzen-

⁶ The analyses presented in this chapter have been submitted for publication (Schauenburg, Buchheim, Nolte, Brenk, Leichsenring, Strack, & Dinger [under review])

doorn, 1997). Attachment research suggests that the caregivers' attachment representations influence – supposedly via *sensitivity* towards a child's needs – the development of attachment patterns in children (van Ijzendoorn, 1995).

Clinical applications of attachment theory have become quite popular in psychotherapy research over the past decade (Davila & Levy, 2006). The majority of studies on attachment in psychotherapy, however, have focused on the attachment patterns of patients. Since psychotherapy is an interpersonal process, involving patients in need and therapists trying to provide care and help, one should expect that communicative competencies as described for securely attached individuals should also enhance therapists results (Halpern 2003).

In previous theoretical contributions, therapists have been viewed as attachment figures for their patients. They are sought out in states of distress (activated attachment system); they offer empathic support and, most important, neutrality (i.e. safety). They are expected to be “wiser” and “stronger”, at least pertaining to psychological problems. All this is in part analogous to the child-caretaker-interaction of classical attachment theory (Dozier & Bates, 2004; Farber, Lippert, & Nevas, 1995). To fulfill the attachment needs of their patients, therapists should possess certain characteristics, like empathy, sensitivity, control of affects, broad relationship experiences, abilities for reflecting and perspective taking (e.g. Diamond, Stovall-McClough, Clarkin, & Levy, 2003). Individuals with secure attachment representations are more autonomous in difficult interpersonal situations. They are supposed to be more flexible and thereby able to act according to the needs of the situation. In addition, they are less likely to be driven by their own attachment fears and needs. In psychotherapy, this might enable the therapist to care well for the patient. On the contrary, dismissive therapists might wish to distance themselves from difficult patients and preoccupied therapists might experience feelings of guilt and fear they are not adequate. In addition, secure therapists might be less receptive to countertransference strivings induced by the insecure inner working models of their patients and are therefore less likely to reinforce negative relationship patterns of patients (Dozier, 1990). According to Mallinckrodt's “Social Competencies in Interpersonal Process” (SCIP) model, therapists' attachment representations as well as other childhood experiences influence therapists' technical skills as well as social competencies and dispositions. These variables can be framed as therapists' contribution to therapy and are assumed to influence the therapeutic relationship (Mallinckrodt, 2000).

Only few studies have investigated therapists' attachment representations empirically. One carefully conducted study in the context of clinical case management found interaction

effects between psychiatric patients' and their case managers' attachment states of mind (Tyrell, Dozier, Teague, & Fallott, 1999): When Adult Attachment Interviews were coded on a dimension of "attachment activation" from de- to hyperactivation, complementary attachment patterns of patients and case managers were most helpful. Dismissing patients obtained better outcome with preoccupied case managers and preoccupied patients improved better with dismissing case managers. A few other studies have investigated the impact of therapists' attachment styles on alliance but found either no effects (Ligiero & Gelso, 2002) or reported only therapist ratings (Black, Hardy, Turpin, & Parry, 2005). With exception of the study by Tyrell et al. (1999), most studies on the attachment of therapists so far have used self-report questionnaires for the assessment of attachment representations. There has been a discussion about the different aspects of attachment that are assessed by self-reports and observer-ratings in standardized situations (Waters, Crowell, Elliott, Corcoran, & Treboux, 2002). Both traditions have achieved meaningful results in previous studies, but the impressive results on the transgenerational passing of attachment, including results on parental caregiving (van Ijzendoorn, 1995; De Wolff & van Ijzendoorn, 1997) as well as the data on longitudinal stability (Grossmann, Grossmann, & Waters, 2005) stem from expert-rated assessment. For adults, the "gold-standard" is the Adult Attachment Interview AAI (George, Kaplan, & Main, 1985) with certified raters, which was used in this study

Aims of the study

The present study was conducted to investigate therapist's attachment representations using an established interview based representational measure, the Adult Attachment Interview (George et al., 1985). Therapists with a secure attachment representation are hypothesized to be more flexible in their relationship offers towards diverse needs of their patients. Patients treated by therapists with a secure attachment representation were therefore expected to report better therapeutic alliances with their individual therapists and to profit better from therapy in terms of symptomatic outcome. Therapists' secure attachment representation was expected to be especially beneficial when treating patients with severe interpersonal difficulties.

Methods

Participants

We studied outcome and alliance ratings of N=31 psychodynamically oriented psychotherapist who treated N=1381 patients in an intensive multimodal inpatient setting. The psy-

chotherapists were part of the staff of two psychotherapy hospitals in Germany and were asked for participation based on their caseloads (minimum of 10 documented cases). Therapists were between 26 and 54 years old ($M=37.4$, $SD 6.4$) and gender was equally distributed (48.4% female). Their professional background was mainly a medical education with psychotherapeutic specialization ($N=27$ physicians and $N=4$ clinical psychologists). Professional experience ranged from 0.1 to 21.5 years ($M=6.6$, $SD 4.8$) and each therapist treated between 13 and 182 patients ($M=44.6$; $SD 29.43$). Most of them were psychodynamically oriented (38% psychodynamic, 32% psychoanalytic, 19% systemic/family therapy); some were still in postgraduate psychotherapeutic training (38.7%). Patient assignment to therapists within each clinic was non-systematic and followed the regular flow of admission and discharge. It is important to note that neither therapists nor patients had a possibility of interfering with the standardized assignment procedure. In both clinics the assignment followed a consecutive order with no respect to preferences by patients or therapists.

Patients were treated in two psychotherapeutic hospitals in Germany. In both clinics a change of therapist (due to illness, vacation, etc.) during therapy was documented, so that we were able to include only those patients who did not change their individual therapist over the course of treatment. The patients' age varied between 18 and 71 years ($M=34.6$; $SD 11.30$) and 66.4% were female. Average duration of treatment in this severely impaired sample was 12.0 weeks ($SD 5.4$).

The distribution of ICD-10 diagnoses is typical for a German inpatient psychotherapy population, which is characterized by severe, chronic disorders and high comorbidity. Among the diagnoses, obtained by clinical rating, were mostly affective disorders (55.6%), followed by anxiety disorders (35.7%) and adjustment/stress disorders (32.5%). Less frequent were eating disorders (19.4%), somatoform disorders (16.9%), obsessive-compulsive disorders (6.6%) and psychotic disorders (3.8%). A substantial percentage (41.1%) had a comorbid personality disorder and most patients received more than one diagnosis (24.5% received one diagnosis, 37.8% two, 28.4% three diagnoses and 9.3% more than three). The average symptom load at admission was quite high (SCL90R-GSI at intake was $M=1.46$, $SD=.65$) and had significantly decreased at discharge ($M=0.95$, $SD=.66$).

Unfortunately complete, medication records were available only for one clinic ($N=367$ patients). The following statistics apply only for this subsample: In the clinic in question, 43.6% took psychotropic drugs at intake (mostly antidepressants). Psychotropic medication

was reduced for 12.9% of patients during therapy. There was no influence of medication status on outcome and no interaction with initial symptom severity.

Setting

All patients received multimodal intensive inpatient psychotherapy with behavioral as well as psychodynamic elements. They had individual therapy sessions (1-2 times per week) as well as additional therapeutic interventions (e.g. disorder-specific interventions). The individual therapist was also coordinating the other therapeutic interventions and was meant to be the primary contact person for patients. The therapeutic staff (nurses) as well as other patients on the unit both plays an additional important role in the therapeutic concept of both clinics. Most patients had also group therapy sessions (twice a week), and art therapy and body oriented therapy was available in both clinics.

Procedure

Patients filled out routine assessments of symptomatology and interpersonal problems at the beginning and end of treatment and retrospectively evaluated the therapeutic relationship with their individual therapist at the last day of therapy. They gave their informed consent, that their anonymous data may be used in future research projects. The study was approved by the local ethics committee.

Therapists were asked for participation and ensured that several steps were taken in order to guarantee their anonymity. After they agreed to participate in the study, therapists were contacted by the trained interviewer of the Adult Attachment Interview (K.B.), who was affiliated to a distant university and who they did not know personally. Interviews were conducted in a place suggested by the therapists (clinic, private practice, at home). All Adult Attachment Interviews were audio taped, assigned a study code and a verbatim transcript was written, based on the audiotapes. The AAI transcripts were coded by an experienced and certified reliable judge (A.B.). The time span between a therapist's interview and the therapies included in the outcome evaluations in this study was between 6 and 24 months. This is acceptable, since attachment representations are seen as relatively stable (e.g. Benoit & Parker, 1994).

Measures

Therapists' attachment representations were assessed with the Adult Attachment Interview (George et al., 1985; Main & Goldwyn, 1985). The AAI is a 1-hour semi structured interview with 18 questions about childhood experiences with primary attachment figures

(mostly parents). The intensive rater training ensures high reliabilities; interrater as well as test-retest reliabilities are excellent (Bakermans-Kranenburg & van Ijzendoorn, 1993). The interview is transcribed for the coding procedure. Based on the underlying assumption that the attachment status manifests itself in the mental organization of attachment experiences, the coding takes into account coherence, flexibility and completeness of the discourse. The resulting AAI categories are: secure/autonomous (F), insecure/dismissing (Ds), insecure/preoccupied (E) and unresolved (U). In case of unresolved attachment, one of the organized patterns (F, Ds or E) was chosen as an alternate classification. As we had only one certified and reliable AAI rater (second author A.B.) in our research team, we tested the reliability of the AAI ratings comparing AAI categories and the secure/insecure distinction to assigned attachment categories from the Adult Attachment Projective AAP (George & West, 2001). AAPs were blind-classified by our AAI coder, who is also a certified and reliable AAP judge. The AAP is a projective test, where subjects tell a story about 8 drawings that display 7 attachment relevant situations. Previous studies showed that AAI and AAP classifications are highly correlated (Buchheim, George, & West, 2003). In the present study, the agreement between the two attachment measures was high (93% convergence [$\kappa=0.84$] for 4 categories including unresolved, 90% convergence [$\kappa=0.87$] for secure-insecure distinction). In addition to the assignment of categorical groups, the AAI scoring sheets contains scores on continuous scales (“experience” and “state of mind”). Recent work from attachment researchers has repeatedly discussed the limitations that lie in the use of categorical variables (Fraley & Spieker, 2003). A new method allows the derivation of two continuous measures from the AAI state of mind scale: “security-vs.-insecurity” and “dismissive-vs.-preoccupied” (Waters, Treboux, Fyffe, Crowell, & Corcoran, 2008). Discriminant coefficients for the AAI scales are provided: “security-vs.-insecurity” comprises 5 AAI states of mind scales and the highest discrimination coefficient for “coherence of transcript”; “dismissive-vs.-preoccupied” comprises 7 AAI states of mind scales, and the highest discrimination coefficients for (inverse) “passivity” and “idealization of mother”. Raw discrimination coefficients were used, allowing a better comparability with other samples.

Alliance Ratings from patients were obtained at termination of therapy with the German translation of the Helping Alliance Questionnaire (Bassler, Potratz, & Krauthauser, 1995). The HAQ consists of 11 items covering the relationship to the therapist on a 6-point Likert-scale. The mean was taken here as a measure for the overall quality of patient-rated alliance. Satisfactory construct validity and adequate reliability has been reported for the German version (Cronbach’s $\alpha=.89$; Bassler et al., 1995). The original version also correlates

with other established measures of alliance (e.g. Hatcher & Barends, 1996). The assessment of the therapeutic alliance at termination brings about some limitations, as retrospective alliance ratings are likely to be confounded with outcome (Tang & DeRubeis, 1999). HAQ ratings and GSI post scores in this study were significantly correlated ($r=-.26$, $p<.01$). However, the present data set does not allow testing whether this correlation is due to a positive influence of strong alliances on outcome, or if patients with successful outcome tend to give higher alliance ratings. Limitations that derive from the use of a retrospective alliance measure will be discussed.

Outcome of therapy was routinely assessed with three measures in order to increase validity of the findings. All measures were completed at beginning and termination of treatment. Symptom load from the patients' perspective was measured with the German version of the SCL-90-R at (Franke, 1995). The Global Severity Index (GSI) is an internationally accepted outcome measure and was used here as primary outcome measure from the patients' perspective. The GSI measures overall symptom distress; its reliability and validity has been demonstrated in numerous studies. A validation study in a large representative German population sample replicated the scale's high internal consistency (Hessel, Schumacher, Geyer, & Braehler, 2001).

The degree of patients' interpersonal problems was assessed with the Inventory of Interpersonal Problems IIP. The German version (Horowitz, Strauss, & Kordy, 2000) consists of 64 items that are answered on a 5-point scale. It covers frequent interpersonal problems on eight scales in a circumplex structure around the dimensions of dominance and affiliation. For the present study, only the IIP total score was used as measure of interpersonal distress. The IIP is a frequently used instrument in psychotherapy research studies, its psychometric quality has been established for the original version (e.g. Alden, Wiggins, & Pincus, 1990) as well as for the German translation (e.g. Braehler, Horowitz, Kordy, Schuhmacher, & Strauss, 1999).

Patient's global impairment was also assessed from the therapists' perspective with the Impairment Score IS, a common German measure (Schepank, 1995) at beginning and termination of treatment. The impairment score results from a therapist rating of patient psychological, sociocommunicative and physical impairment on a four-point scale. A global score, the sum of the three subscales, is computed and can be interpreted as global measure of patient impairment from the therapists' perspective. Interrater reliability ranges from satisfactory to excellent (Kendall's $W=.82$ for five raters, intraclass correlations between $.89$ and $.97$ for

different samples) and good concordance with similar measures has been reported (Schepank, 1995).

Statistical Procedure

Multilevel regression techniques are adequate to take into account the nested structure of the data (patients nested within therapists) as well as the different sample sizes at each level. Most steps of analysis were similar for the four dependent variables (Alliance: HAQ score; Outcome: GSI post score, IIP post score, IS post score). Therapists were treated as random factors. We first computed an intercept-only model without any explanatory variable in order to obtain the percentage of variance that was due to the person of the therapists. For the following multilevel models we included patient variables on the patient level (GSI, IIP and IS pre scores). All three measures were included in order to predict retrospective alliance ratings, but only the corresponding variable was included in each outcome model (e.g. only GSI pre scores for the prediction of GSI post scores). The influence of patient-level predictors was allowed to vary freely between therapists. This differs from the residual change score approach that is frequently used in psychotherapy studies, but is more adequate if one is interested in therapist effects (Lutz, Leon, Martinovich, Lyons, & Stiles, 2007).

On the therapist level, we used continuous AAI dimensions (security-vs.-insecurity and dismissiveness-vs.-preoccupation). They were used as direct predictors of the dependent variable and interactions with the pre treatment variable of the patients were allowed. The multilevel modeling was done with the program HLM 6.02 (Raudenbush, Bryk, Cheong, & Congdon, 2004).

Results

For descriptive reasons, we first report the distribution of attachment representations in the therapist sample as obtained from the AAI coding (4-strategies solution and only organized strategies). Table 1 shows both solutions.

More than half of the therapists were classified with a secure attachment representation, but a substantial percentage (23%) fell into the unresolved attachment category. Only a few therapists were classified as insecure-dismissing. This corresponds to the distribution of the continuous AAI dimensions following Waters et al. (2007): The dimension “security-vs.-insecurity” ranged from high security scores (Max = 2.32) to moderate insecurity scores (Min = -1.09); the mean was $M=0.38$ (SD 0.99). The dimension “dismissive-vs.-preoccupied” was distorted towards the preoccupation side with no high dismissive score (Max = 0.43), but high

Table 1.
AAI distribution among psychotherapists (N=31)

AAI category	4 strategies		only organized strategies	
secure/autonomous (F)	19	(61.3%)	20	(64.5%)
insecure/dismissing (Ds)	2	(6.5%)	3	9.7%
insecure/preoccupied (E)	3	(9.7%)	8	(25. (8%)
unresolved/disorganized (U)	7	(22.6%)		

preoccupation scores (Min = -5.4); the mean was $M=-1.61$ (SD 1.38). Assuming that categorical variables conceal existing differences of individuals in one category, we computed the following multilevel models with the continuous AAI dimensions.

Multilevel regression analyses: Alliance

In a first step, we therefore calculated the amount of variance in retrospective alliance ratings due to the person of the therapists. In the intercept only model, therapists were responsible for 36.9% of the variance. To test, whether initial difficulties exert an influence on the terminal alliance rating, the following multilevel models took into account three measures of patient difficulties prior to treatment on the patient level: patients' levels of interpersonal distress (IIP), patient-reported symptom load (GSI) and therapist-rated patient impairment (IS). On the therapist level, therapists' continuous AAI scales following Waters et al. (2007) were used as predictors and interaction between variables on the patient and therapist level were allowed.

Table 2.
Multilevel Estimates for retrospectively assessed alliance (HAQ)

Fixed effects	Coefficient	S.E.	T ¹
Mean alliance (intercept)	1.43	0.205	6.98**
× AAI secure-insecure	0.07	0.127	0.53
× AAI dismissive-preoccupied	0.10	0.150	0.66
IIP pre influence	-0.35	0.144	-2.4*
IIP pre × AAI secure-insecure	0.16	0.063	2.57*
IIP pre × AAI dismissive-preoccupied	-0.03	0.061	-0.57
GSI pre influence	-0.08	0.121	-0.66
GSI pre × AAI secure-insecure	0.15	0.065	2.25*
GSI pre × AAI dismissive-preoccupied	-0.07	0.059	-1.15
IS pre influence	<0.01	0.033	0.09
IS pre × AAI secure-insecure	-0.06	0.020	-2.79**
IS pre × AAI dismissive-preoccupied	0.03	0.017	1.62

Note. S.E.=Standard Error; HAQ=Helping Alliance Questionnaire, IIP=Inventory of Interpersonal Problems (total score), GSI=Global Severity Index, IS=Impairment Score. AAI secure-insecure and dismissive-preoccupied = dimensional measures of therapist attachment representation

¹df=28

**p<.01; *≤.05.

There were no direct (i.e. main) effects of therapists' attachment dimensions on retrospective alliance ratings. However, attachment security-vs.-insecurity appeared as moderator of patient variables. In general, patients with high levels of interpersonal problems (IIP total score) reported lower alliance qualities than patients with fewer interpersonal problems. The influence of pre-therapy interpersonal distress was moderated by therapists' attachment status: from the therapist's perspective. However, neither symptom load measured with GSI or therapist-rated impairment (IS) were directly associated with lower quality alliances, when the IIP total score was included in same model. On the patient level, interpersonal problems seem more relevant than symptom load for patients' perception of alliance.

Contrary to our expectations, therapists' AAI dimension dismissing-vs.-preoccupied did not influence alliance ratings.

Multilevel regression analyses: Outcome

In order to investigate the influence of therapists' attachment dimensions on outcome, we computed multilevel models for three outcome measures: Patients' interpersonal problems (IIP total score). Patients' symptom load (GSI) and patient impairment as rated by therapists (IS). Analogue to the procedure for alliance, we obtained in a first step the amount of ex-

Table 3.
Multilevel Estimates for three Outcome Variables

Outcome	Fixed effects	Coefficient	S.E.	T
GSI post	Mean outcome (intercept)	0.98	0.026	38.01**
	× AAI secure-insecure	-0.02	0.036	-0.51
	× AAI dismissive-preoccupied	0.02	0.013	1.29
	GSI pre influence	0.69	0.035	19.76**
	GSI pre × AAI secure-insecure	-0.09	0.033	-2.62*
	GSI pre × AAI dismissive-preoccupied	0.04	0.025	1.39
IIP post	Mean outcome (intercept)	1.46	0.031	47.13***
	× AAI secure-insecure	0.01	0.027	0.31
	× AAI dismissive-preoccupied	-0.03	0.012	-3.25***
	IIP pre influence	0.74	0.038	19.44***
	IIP pre × AAI secure-insecure	-0.05	0.021	-2.26**
	IIP pre × AAI dismissive-preoccupied	0.02	0.021	0.98
IS post	Mean outcome (intercept)	4.97	0.217	22.89***
	× AAI secure-insecure	-0.38	0.113	3.35***
	× AAI dismissive-preoccupied	0.03	0.010	0.28
	IS pre influence	0.35	0.059	5.93***
	IS pre × AAI secure-insecure	0.09	0.051	1.82*
	IS pre × AAI dismissive-preoccupied	-0.01	0.031	-0.33

Note. S.E.=Standard Error; GSI=Global Severity Index, IIP=Inventory of Interpersonal Problems (total score), IS=Impairment Score (therapist-rated). AAI secure-insecure and dismissive-preoccupied = dimensional measures of therapist attachment representation

¹df=28

***p<.01; **<.05; *p<.10.

plained variance due to the person of the therapists for the three outcome measures. Intercept-only models were computed for GSI, IIP and IS pre scores. While therapists explained 4.5% of GSI post score, only 0.5% of IIP post scores were due to therapists. However, therapist differences were considerably larger for the therapist rated impairment score (17.6%). For the patient-rated outcome measures IIP and GSI it is important to keep in mind that the variance shares due to therapists are relatively small compared with the large amount of variance usually explained by patient factors.

The multilevel models revealed slightly different results for the three outcome measures (Table 3). The global severity index GSI was not directly predicted by therapists' attachment dimensions. However, the influence of GSI pre scores was moderated by dimensional therapist attachment security: On average, high pretreatment symptom load led to higher GSI post scores. This effect was diminished in therapists with high attachment security, which corresponds to the finding that therapists with high attachment security had better alliances with severely disturbed patients..

Unlike the GSI, the therapist attachment directly predicted IIP post scores. There was a significant main effect of therapist dismissiveness-vs.-preoccupation on IIP post scores. A lower degree of preoccupation in therapists led to fewer patient-rated interpersonal problems at the end of treatment. In addition, there was an interaction effect of patients' pre treatment IIP score and therapists' attachment security dimension. Again, higher attachment security of therapists diminished the negative impact of high pre treatment interpersonal problems on the IIP score at termination.

A different main effect of therapist attachment was found for the therapist-rated impairment. Here, higher attachment security predicted lower impairment scores at termination. More securely attached therapists rated their patients as less disturbed than did their insecure colleagues. In addition, an interaction effect of therapist attachment security and patient pre-treatment impairment reached significance on a trend-level ($p < .10$). Again, therapist attachment lessened the degree of negative influence that high impairment prior to therapy had on impairment scores at termination.

Discussion

We studied the association between therapists' attachment representations and the quality of the therapeutic alliance as well as outcome in inpatient psychotherapy. The distribution of adult attachment patterns among therapists showed that the majority of subjects in this sample of psychodynamically oriented therapists were classified as secure, and that the fre-

quency of secure attachment closely parallels that rate of security in other non-clinical samples. When examining “organized” attachment strategies, the distribution of dismissive and preoccupied attachment was reversed: There were more preoccupied and fewer dismissive therapists in comparison to other non-clinical samples (van Ijzendoorn & Bakermans-Kranenburg, 1996). This is consistent with a study describing psychoanalytic therapists as more sensitive to threats (of separation), while cognitive therapists have less need to give and receive affection or express feelings in relationships (Arthur, 2000). On the other hand, individuals with dismissive attachment representations are characterized by denying the importance of close relationships, by valuing cognition over emotion and by seeking “truth” in logical coherence (Mc Bride, Atkinson, Quilty, & Bagby, 2006). These descriptions might serve as speculative explanation for the relatively small number of dismissing therapists in our psychodynamic therapist sample.

We first investigated the association between therapists’ attachment representations and the quality of the therapeutic alliance. Therapist’s influence on alliance was considerably greater than on outcome: 36.5% of alliance variance was due to therapists differences. Even though we used retrospective alliance measures that are likely to be influenced by outcome, patients’ ratings of the alliance showed large variations between therapists while outcome was more similar with different therapists. The retrospective assessment of the alliance, however, limits the generalization of our findings.

Even though there was a large share of alliance variance due to therapists, we did not find alliance differences between categorical therapists’ attachment strategies. Furthermore, the continuous variable of “dismissive-vs.-preoccupied” attachment did not reveal the expected negative influence of dismissing attachment of the therapist on alliance quality. However, when looking at the dimension of “attachment security”, the interaction effects between therapist’s security and patients’ initial difficulties were significant. Therapist attachment security moderated the influence of prior interpersonal problems, symptom load and global impairment from the therapists perspective on the retrospective alliance measure. A plausible interpretation of these findings is that attachment security is helpful when treating clients with more severe disturbance. Attachment security in therapists might be able to compensate partially patients high interpersonal distress: In general, patients with high interpersonal distress (high IIP scores) report alliances of lower quality than patients with fewer interpersonal problems. This effect can be attenuated by therapists’ secure attachment, presumably because secure therapists are better able to adapt their behavior in order to appropriately fit the needs of interpersonally “difficult” patients.

In order to investigate the degree in that attachment security is associated with therapy outcome, we again determined the therapists' share of outcome variance for three outcome variables. We found considerably less variance of patient rated outcome that was due to therapists, when comparing the therapist variance shares with studies in outpatient samples (0.5 and 4.5 in the present study vs. up to 18% in outpatient samples. [Lutz et al., 2007]). This relatively small influence of therapists in inpatient therapy corresponds with the findings from a larger sample on therapist effects in inpatient therapy (Dinger, Strack, Leichsenring, Wilmers, & Schauenburg, 2008) and seems plausible, as patients can establish therapeutic relationships with different people on the unit and therefore balance therapist's effects. Because the overall therapists' influence on outcome is small in inpatient therapy, the investigation of therapists' attachment representations in this setting must be viewed as a rather conservative test. Therapist variance shares were greater when looking at therapist-rated global outcome (17.6%). However, as therapist rating tendencies can inflate therapist differences, patient-rated measures are more adequate for the test of therapist differences.

We operationalized attachment representations of therapists in a dimensional way. When testing the influence of the two dimensions "security-vs.-insecurity" and "dismissiveness-vs.-preoccupation", secure attachment was associated with good outcome when treating patients with higher disturbances prior to therapy. This effect was consistent over all three outcome measures, although it only reached trend level for the therapist measure IS. The interaction effect between therapist attachment security and pre treatment impairment can be interpreted as an indication that secure attachment is especially helpful when treating patients with greater symptomatic impairment. This is in line with our expectations and seems plausible. Based on their study on borderline personality disorder, Bateman & Fonagy (2004) point out that therapists' capacity to mentalize, which is considered as characteristic for secure individuals, is of crucial importance, in order to provide stability and to maintain a positive relationship with this severely disturbed patient group, characterized by frequent ruptures of relationships.

Findings of direct (main) effects of therapists' attachment dimensions were less consistent. Dismissiveness-vs.-preoccupation predicted patient's interpersonal problems, leaving room for speculation on the negative influence of therapist attachment preoccupation on the "working through" of interpersonal problems in patients. However, this effect was not present for symptomatic improvement or global impairment and should therefore be confirmed in other studies. Security-vs.-insecurity was a direct predictor of therapist-rated impairment at termination. It seems possible that the effect of therapists' attachment security on their own

impairment rating is due to a rating bias: more secure therapists evaluate their own work more positively than their insecure colleagues.

This study aims at the explanation of an important “ingredient” of psychotherapeutic treatment. Nevertheless, some limitations have to be taken into account. A major limitation is the use of retrospective alliance ratings, as such evaluations are likely to be confounded with outcome. It is unclear how much of the HAQ ratings are true alliance ratings, and to what extent they are actually outcome ratings. Patients who improved well during therapy might attribute their success to the person of the therapist and tend to evaluate him more positive, although they might not have felt this way throughout therapy. Similarly, patients with less positive outcomes might view their therapist and the therapeutic relationship as less positive, because attribute parts of the disappointing outcome to the therapist. Tang & De Rubeis (1999) showed that sudden gains in depressive symptoms were followed, but not preceded by more positive alliance ratings. Larger studies measuring early alliance are needed to assess whether therapists’ attachment representations exert their influence via the therapeutic alliance or if the latter is a mere correlate of symptom improvement (i.e., if the alliance is a mediator for the moderating influence of therapist attachment security on the relation between pre treatment disturbance and outcome). However, the correlation between alliance and outcome is not large ($r=-.26$) and, in addition, therapist differences in alliance ratings were considerably larger than therapist effects on outcome. This indicates that the retrospective alliance measure captured unique features of the patients’ view of their psychotherapy, that were not reflected in the outcome measures.

While one main advantage of this study is the quasi-random assignment of patients to therapists (no choice of therapist by patients), which is often difficult to realize in naturalistic studies, the proportion of outcome variance due to therapist in our sample was small. This is due to the inpatient setting and it is important to keep in mind that the results for outcome cannot be generalized to other settings without caution. Nevertheless, the result of a positive influence of therapist attachment on outcome with severely disturbed patients seems clinically plausible and might serve as a research-generating hypothesis for future samples with outpatients.

A further limitation is the selected sample of therapists. We only included psychodynamically oriented inpatient therapists, who worked in psychotherapy clinics with a high standard. There is a positive selection of therapists in the job interview and extended “social control” is exerted during the therapeutic process via therapeutic team decisions and regular

supervision. A further explanation for the relatively similar results of different therapists is the professional skills of the therapists themselves. From a conceptual point of view, it must be kept in mind, that a strict equation of attachment and care giving system is not justified (George & Solomon, 1999). Therapists with insecure attachment also have therapeutic skills and professional potentials, which enable them to carry out successful psychotherapies. Further studies also will have to take into account the fit of attachment status of patients and therapist as a predictive variable

Despite its limitations, this is one of the first studies that assessed therapists' attachment states of mind with AAI interviews and related them to alliance and outcome measures. We were able to include a sufficient number of patients per therapists, which enabled us to study interactions between patient and therapist variables. Participating therapists profited from the design, as most of them enjoyed their interview and found the feedback about their own attachment representations as well as the study results helpful and informative.

What are the future perspectives that arise from this study? Greater influences of therapist attachment representations on outcome can be expected in outpatient settings. In addition, it seems desirable to assess both patients' and therapists' attachment in order to investigate possible matching effects. If one is interested in a deeper understanding how therapist attachment manifests itself in the therapeutic process, one has to look beyond pre-post evaluations and investigate therapists' interventions on a micro-analytic level.

3.2 Development of the therapeutic alliance over time⁷

The therapeutic alliance is one of the most intensely studied process factors and its moderate relation to therapy outcome has been demonstrated in numerous studies. The alliance is usually conceptualized as consisting of three main components: the bond between therapist and patient, the agreement on therapeutic goals and on tasks (Bordin, 1979). While most researchers have studied the alliance as a predictor for outcome (e.g. Martin, Garske, & Davis, 2000; Horvath & Bedi, 2002), some researchers used alliance ratings as dependent variables and tried to identify client and therapist variables related to it (e.g. Constantino, Arnou, Blasey, & Agras, 2005; Ackerman & Hilsenroth, 2003). Both approaches are important and established the alliance as an accepted process factor.

Alliance development in psychotherapy

The quality of the alliance is unlikely to stay constant over the whole period of treatment. Based on a proposition by Gelso & Carter (1994), a number of researchers have attempted to model alliance development over time (de Roten et al., 2004; Kivlighan & Shaughnessy, 1995; 2000; Stiles et al., 2004). Several patterns of development have been described: In a study on 4-session counseling, Kivlighan & Shaughnessy (2000) differentiated a group of patients with a stable alliance from a linear growth group and a quadratic growth (i.e. U-shaped) group. De Roten et al. (2004) also investigated a 4-session treatment and identified “stable alliance” and “linear growth” patterns. Stiles et al. (2004) replicated the finding of a stable alliance and a linear growth alliance group for longer treatments (8 and 16 sessions), and found two additional groups (“rapid early improvement” and “deterioration of an initially high alliance”), but had no clear indication of u-shaped alliance profiles. Dinger & Schauenburg (under review) describe nine different forms of alliance development in the context of inpatient psychotherapy. They used a regression model with three parameters (intercept, beginning and termination phase) developed by Schauenburg, Sammet & Strack (2001) to model alliance development compatible to therapy phases. Most patients (22.5%) showed an early improvement pattern with stable alliances later on, but a substantial number either had stable alliances over the whole treatment, or improvement only towards the end, or u-shaped patterns, or other forms of alliance development.

⁷ The analyses presented in this chapter have been submitted for publication (Dinger, Strack, & Schauenburg [under review])

The relation between alliance development and outcome has been investigated with inconsistent finding. Although in an earlier paper Kivlighan & Shaughnessy (1995) had reported a positive impact of linear growth in therapist alliance ratings, in their study on 4-session counseling the quadratic growth group profited best from treatment (Kivlighan & Shaughnessy, 2000). In a study by de Roten et al. (2004), patients with a linear growth alliance development showed a greater symptom reduction compared to those with stable alliances. Stiles et al. (2004) reported no association between overall shape of alliance development and outcome. In the study by Dinger & Schauenburg (under review) the patient group with alliance improvement in the beginning and in the termination part of therapy had the best outcome, while patients with initially stable alliances that deteriorated towards the end profited least from psychotherapy. On a general level, a deterioration of alliance ratings in the beginning and an improvement towards the end of therapy were identified as independent positive predictors of outcome. This finding was obtained for all patients, irrespective of groups with different alliance developments.

In summary, an association between alliance development and therapy outcome has been demonstrated, although the results appear to be somewhat inconsistent. As alliance develops within an interpersonal context, the question arises, which patient and therapist characteristics are associated with different forms of alliance courses. Only few studies are available on this topic. The present study concentrates on therapists' influence on alliance development and attempts to investigate therapist's attachment representations as one possible variable that is assumed to influence alliance development over time.

Attachment of therapists in psychotherapy

Attachment related behaviors, cognitions and emotions are conceptualized as resulting from experiences with emotionally significant others over the lifespan. Bowlby's attachment theory proposes that not only protection-seeking attachment behavior, but also caregiving behavior is influenced by attachment representations. According to Main & Goldwyn (1985), adults can be classified into four attachment categories: secure-autonomously attached individuals value close relationships and report past relationship experiences in a coherent and integrated way. As caregivers, they are able to adapt their behavior to the needs of others. In contrast to the secure category, two insecure groups have been identified: insecure-preoccupied and insecure-dismissive. Insecure-preoccupied individuals have a desire for closeness in intimate relationships, but also experience fear of abandonment and may express higher levels of anger. They typically show hyperactivating attachment strategies in emotion-

ally significant relationships, which include a strong approach orientation, attempts to elicit their partners' involvement and care through clinging and controlling responses, and efforts to minimize distance to others (Mikulincer, Shaver, & Pereg, 2003). Insecure-dismissive individuals on the other hand tend to devalue attachment issues and feel comfortable in more distant relationships. They may describe idealized past relationships with attachment figures, but are often unable to remember vivid examples of attachment related situations. Their efforts to keep relationships at distant are often called deactivating attachment strategies (Mikulincer et al., 2003). In addition, a fourth category ("unresolved") describes people with traumatic relationship experiences that have not been integrated adequately.

Bowlby (1988) proposed that psychotherapists ought to act as a "secure base" to their clients, allowing them to deal with painful experiences of their past and present life. Based on studies with single-point assessments of alliance, attachment representations are considered to be relevant for therapeutic behavior and the therapist's contribution to the therapeutic alliance. In the context of clinical case management, attachment security of case managers was related to the depth of intervention and to their perception of patients' dependency needs. Specifically, secure case managers were able to attend and respond to patients' underlying needs and intervened at greater depth. Insecure case managers in the other hand responded more to the most obvious needs that patients presented (Dozier, Cue & Barnett, 1994). Tyrrell, Dozier, Teague and Fallot (1999) showed an interaction effect of patient and therapist attachment on the quality of the therapeutic alliance: Less deactivating (i.e. less avoidant) case managers formed stronger alliances with more deactivating patients. Rubino, Barker, Roth and Fearon (2000) studied clinical graduate students' reactions to videotaped clinical vignettes and found that student-therapists' attachment anxiety (assessed by questionnaire) was negatively related to therapist empathy. Ligiéro and Gelso (2002) reported an association between the level of attachment insecurity of therapists (also assessed by questionnaire) and negative countertransference behaviors as rated by their supervisors. Schauenburg et al. (under review) investigated the influence of therapist attachment assessed with the Adult Attachment Interview (AAI) on retrospective alliance ratings and outcome in inpatient psychotherapy. Therapist attachment did not directly influence overall alliance quality, but there was an interaction effect with patients' level of interpersonal distress and symptom load: Therapists with higher attachment security obtained better alliance ratings from patients with high levels of interpersonal problems and greater symptom load than their insecure colleagues, indicating that secure attachment of therapists is especially helpful when treating severely impaired patients.

To our knowledge, a study by Sauer, Lopez & Gormley (2003) is the only published research investigating the influence of therapist variables on alliance development over the course of treatment. They assessed the quality of the working alliance after the 1st, 4th and 7th session in a naturalistic outpatient setting. Attachment orientations of 13 therapists and 17 clients were related to the formation of the early working alliance. In their study, therapist attachment anxiety was associated with initially positive alliance ratings, which subsequently dropped over time, resulting in significantly lower alliance level in later sessions. No other therapist or client attachment variables had significant influences on alliance ratings.

Aims of this study

This study attempts to replicate and extend the findings from Sauer et al. (2003) in the context of inpatient psychotherapy. While Sauer et al. assessed the attachment orientations of therapists via self-report, this study conducted expert-rated adult attachment interviews with therapists. This seems especially relevant, as there is an ongoing discussion about the different aspects of attachment that are assessed by self-reports vs. observer-ratings in standardized situations (Waters, Crowell, Elliott, Corcoran, & Treboux, 2002). Both traditions have achieved meaningful results in previous studies. However, the results on the transgenerational passing of attachment (e.g. Fonagy, Steele, & Steele, 1991) as well as the data on longitudinal intrapsychic stability (Grossmann, Grossmann, & Waters, 2005) stem mostly from expert-rated assessment. Therefore the Adult Attachment Interview (George, Kaplan, & Main, 1985; Main & Goldwyn, 1985), which is considered the “gold-standard” for assessment of adult attachment was used in this study.

Also unlike the patients in the study by Sauer et al. (2003), patients in this study evaluated the therapeutic alliance to their individual therapist on a weekly basis (mean treatment duration was 12 weeks), which enabled us to calculate a regression model with three parameters (intercept, beginning and termination phase) in order to estimate alliance development.

Based on Sauer et al.’s findings we anticipated variability in alliance development between therapists and expected to explain some of these variations by therapists’ attachment representations. Specifically, we expected a positive influence of preoccupied attachment on the early alliance development, but assumed that this positive start would decline over time, resulting in an overall lower alliance quality of therapists with insecure-preoccupied attachment in comparison to patients treated by other therapists.

Method

Sample

We studied attachment ratings of 12 psychotherapists who treated a total of 283 inpatients at a psychotherapy unit of a German university hospital. The present sample is a subgroup of therapists from a larger study on therapist attachment effects on outcome (Schauenburg et al., under review) and was chosen because weekly alliance evaluations existed only in this institution. Therapists mostly had a medical background (9 physicians, 3 psychologists). They were mostly female (9 women, 3 men), were between 26 and 43 years old ($M=35.7$), and their professional experience as psychotherapists ranged from 1 month to 7.2 years ($M=3.5$ years). Half of them (6 therapists) were still in postgraduate clinical training. Their therapeutic orientation was mostly psychodynamic: 6 therapists were trained as psychodynamic, 4 as psychoanalytic therapists. Two therapists with different theoretical backgrounds (1 client-centered and 1 systemic therapist) described themselves as “very strongly influenced by psychoanalytic/psychodynamic concepts”. Therapists’ were asked for participation based on their caseload (between 6 and 45 patients; $M=23.3$) and received a monetary reward.

Patients were included if they were treated by one of the 12 therapists in the clinic, had no change of their individual therapist over the course of treatment and had less than 4 missings of their weekly alliance questionnaires. The ICD-10 diagnoses of the resulting 280 patients are typical for a German inpatient psychotherapy population, which is characterized by severe impairment and high comorbidities. The most common clinical ICD-10 diagnoses were depressive disorders (57.6%), followed by anxiety (22.1%), eating (18.2%) and somatoform disorders (16.4%). Less frequent were adjustment/stress (8.9%) and obsessive-compulsive disorders (5.0%). Two thirds of patients were female (69.3%) and their age varied between 18 and 70 years ($M=32.8$, $SD=11.93$). Patients gave informed consent for their routinely assessed data to be used in research projects and the study was approved by the local ethics committee.

Setting

All patients were treated within the same multimodal inpatient psychotherapy setting in a German university hospital. The German medical system allows inpatient psychotherapy for patients with severe neurotic and personality disorders that are likely to profit better from the highly structured setting than from a less frequent outpatient therapy. The main orientation

of the clinic is psychodynamic, but behavioral and disorder-specific interventions are included in the treatment. Patients were assigned to therapists by an administrative secretary according to therapists' caseload and neither therapists nor patients influenced this routine assignment procedure. Patients met with their individual therapist 1-2 times a week, received additional group therapy twice a week, as well as art and body-oriented therapy, and structured daily interactions with highly qualified nurses on the ward. The individual therapist coordinated the additional therapeutic components and was meant to be the primary contact person for patients. The mean treatment duration was 12.0 weeks (SD=2.97).

Measures

We assessed patients' interpersonal difficulties before therapy with the German version of the Inventory of Interpersonal Problems and used the IIP total score as measure for patients' symptom load before treatment. The German version (Horowitz, Strauss, & Kordy, 2000) consists of 64 items that are answered on a 5-point scale. For the present study, only the IIP total score was used as measure of interpersonal distress. The IIP is a frequently used instrument, its psychometric quality has been established for the original version (e.g. Alden, Wiggins, & Pincus, 1990) as well as for the German translation (e.g. Braehler, Horowitz, Kordy, Schuhmacher, & Strauss, 1999). Reflecting the non-systematic assignment of patients to therapists, there were no pre-treatment differences of patients groups treated by therapists with regard to IIP scores ($F_{11;270}=0.70$; $p>.50$)

Patients evaluated the alliance to their individual therapist with the Alliance Scale of the Inpatient Experience Scale (German: "Stationserfahrungsbogen"; Sammet & Schauenburg, 1999) on a weekly basis. The IES was developed to capture relevant aspects of the therapeutic process in inpatient therapy from the patients' perspective. It consists of 38 items that form 7 scales which demonstrated satisfying to good internal consistencies (Cronbach's α between .71 and .85). For the present study, only the scale "alliance with individual therapist" was used, which assesses the feeling of being understood by the individual therapist and emotional closeness (Cronbach's $\alpha = .71$).

Therapists' attachment representations were classified with the Adult Attachment Interview. The AAI is a 1-hour semi structured interview with 18 questions about childhood experiences with primary attachment figures (mostly parents). The intensive rater training ensures high reliabilities; interrater as well as test-retest reliabilities are excellent (Bakermans-Kranenburg & van Ijzendoorn, 1993). The interviews in this study were coded by an experienced and certified AAI rater. The coding takes into account coherence, flexibility and com-

pleteness of the narrative discourse. The resulting AAI categories are: secure/autonomous (F), insecure/dismissing (Ds), insecure/preoccupied (E) and unresolved (Main & Goldwyn, 1985). In addition to the assignment of categorical groups, the AAI contains scores on continuous scales (“experience” and “state of mind”). In line with recent work by attachment researchers questioning the use of categorical variables (Fraley & Spieker, 2003), a new method that allows the computation of two continuous measures from the AAI state of mind scale “security-vs.-insecurity” and “dismissive-vs.-preoccupied” was developed (Waters, Treboux, Fyffe, Crowell, & Corcoran, 2007). Discriminant coefficients for the AAI scales are provided: the dimension “security-vs.-insecurity” comprises five AAI state of mind scales and the highest discrimination coefficient for “coherence of transcript”; the “dismissive-vs.-preoccupied” dimension comprises seven AAI state of mind scales, and the highest discrimination coefficients for (inverse) “passivity” and “idealization of mother”. Raw discrimination coefficients were utilized in this study, allowing a better comparability with other samples. The two continuous scales were used for the subsequent multilevel analyses.

Results

Description of Alliance Development

The method used in this study to describe alliance development over time is described by Dinger & Schauenburg (under review), who adapted a three-parameter regression method developed by Schauenburg et al. (2001) in order to describe alliance development over time in multilevel models (HLM). Core of the method is a simple regression equation that models the course of alliance development within each patient by three parameters: (a) the mean level, (b) the beginning phase and (c) the termination phase.

$$\text{Alliance}_{\text{patient/week}} = a + b*(1/\text{week}) + c*(1/\text{inverse week}).$$

The first parameter “a” is the mean level of the alliance curve. The second term “b*(1/week)” represents the form of the developing alliance at the beginning phase of therapy⁸: for patients with a positive “b” (e.g. b=1), the alliance declines during the first weeks. Patients with a negative “b”, on the other hand, show an increasing alliance course in the beginning phase of treatment. Finally, the third term “c*(1/inverse week)” uses the same ration-

⁸ 1/week is a negatively accelerating function of time; a positive b-parameter describes a decrease in early alliance ratings. For b=+1 we have 1*1/1=1 for week1; 1*1/2 for week2; 1*1/3 for week3;; 1*1/12 for week 12.

ale for the termination phase of treatment⁹. Here, patients with a positive “c” show an increase in alliance ratings towards the end of therapy. Dinger & Schauenburg (under review) were able to show that the “abc parameters” explain more variance of alliance ratings than a simple linear regression of time. They also demonstrated an association of the abc-parameters of alliance with outcome.

Therapist Attachment

About half of the 12 therapists fell into the category of secure attachment (N=7; 58.3%). The remaining therapists were mostly classified as preoccupied (N=4; 33.3%). One therapist (8.3%) showed signs of unresolved attachment. The secondary organized strategy assigned to this therapist was dismissive. The trend towards a higher degree of attachment preoccupation in the therapist sample was also reflected in the continuous AAI scales: The mean of the “dismissive-vs.-preoccupied” dimension was $M=-2.40$ ($SD=1.32$). The “security-vs.-insecurity” mean was $M=0.40$ ($SD=1.19$), reflecting the almost equal distribution of secure and insecure attachment categories. The two continuous scores were used for further analyses.

Multilevel Modeling

The data show a nested structure on 3 levels: the weekly alliance measures are nested within patients and patients are nested within therapists. As multilevel regression analyses are the appropriate statistical procedures for nested data, calculations were carried out with HLM 6.02 software (Raudenbush, Bryk, Cheong, & Congdon, 2004). Therapists were treated as random factors. On the 1st level (time), we used the abc regression parameters described above to model the weekly alliance ratings of patients. On the 2nd (patient) level, we included the baseline level of interpersonal problems (IIP) as a predictor of overall alliance level (a-parameter). No other patient variables were included. On the 3rd (therapist) level, we entered therapist AAI dimensions “secure-vs.-insecure“ as well as “dismissive-vs.-preoccupied” in order to predict the a, b and c parameters of alliance development. We first entered both AAI scales separately for each estimated parameter on the patient level. The AAI variable “dismissive-vs.-preoccupied” was a successful single predictor of mean alliance (a) and termination course (c). The final model therefore included therapist “dismissive-vs.-preoccupied” as

⁹ The c parameter is a little more complicated, as “inverse week” is calculated for each patient depending on his/her length of stay: $\text{inverse week} = -1 * (\text{week} - [\text{maximum week} + 1])$. For $c=+1$ in a 12 week treatment, we have $1 / (-1 * (12 - [12 + 1])) = 1/1$ for week 12, but $1/\text{inverse week} = 1/12$ for week 1.

Table 1.
Results of the Final Multilevel Regression Model (depend. variable IES alliance score)

Estimated fixed effects	Coefficient	Standard Error	~ t-ratio	df*	p
alliance level "a"	4.76	0.096	49.70	10	<.01
a * dismissive-vs.-preoccupied therapist	0.14	0.035	3.94	10	<.01
a * IIP total score pre treatment patient	-0.17	0.075	-2.26	11	<.05
beginning phase "b"	-0.31	0.115	-2.63	11	<.05
termination phase "c"	0.05	0.046	1.10	10	0.30
c * dismissive-vs.-preoccupied therapist	-0.07	0.022	-2.93	10	<.05

predictor of mean alliance and termination phase. The results of the regression analysis are depicted in table 1 (fixed effects only).

The alliance ratings increased in the beginning (negative b-parameter) and also tended to increase towards the termination of therapy (positive c-parameter, $p=.08$). Patients' initial level of interpersonal distress (IIP) negatively influenced the level of the curve: More severely disturbed patients described alliances of lower quality.

Concerning the influence of therapist variables, a higher score on the "dismissive-vs.-preoccupied" AAI dimension was associated with higher alliance levels: The higher the degree of preoccupation of the therapist (i.e. the lower the score on the dimension dismissiveness-vs.preoccupation), the lower was the level of alliance quality he or she establishes with patients. In addition, the degree of preoccupation correlated with the alliance course at termination of therapy (c-parameter): The significant interaction indicates that therapists' dismissiveness-vs.-preoccupation explained variance of the course of alliance development towards termination. More preoccupied therapists show an increase in alliance ratings towards the end, while for therapists with lower degrees of attachment preoccupation the alliance curve dropped slightly towards the end of therapy.

To illustrate both interactions of therapists' preoccupation and alliance development, figure 1 shows the predicted alliance development for therapists with high and low attachment preoccupation.

Discussion

The focus of this study was the investigation of the influence of therapist attachment variables on the development of the therapeutic alliance. The development of the alliance over time was described by a regression model with three parameters for level of alliance (a), beginning phase (b), and termination phase (c) of treatment. Secure and insecure attachment of therapists was almost equally distributed, but the therapist sample showed a tendency towards

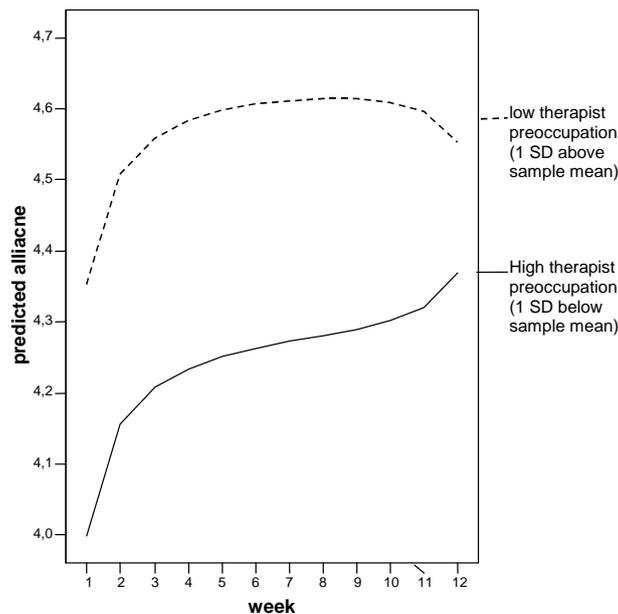


Figure 1. Predicted alliance development depending on therapist attachment preoccupation. Lower scores on the dimension dismissive-vs.-preoccupied represent higher degrees of attachment preoccupation. Both curves depicted (for therapists that either above or below 1 standard deviation of the sample mean), the score lies in the range of attachment preoccupation.

higher preoccupation on the continuum dismissiveness-vs.-preoccupation. A relatively low degree of dismissiveness in a sample of psychotherapists seems plausible, as one would expect that personal interests of applicants as well as selection criteria of graduate psychodynamic psychotherapy institutes would result in more “relationship-oriented” therapists compared to the general population.

Higher attachment preoccupation of therapists was associated with lower overall level of alliance quality and a slight increase in alliance ratings towards the end of treatment. Contrary to the findings from Sauer et al. (2003) and our expectations, all therapists in this study showed an initial increase in alliance ratings, not only those with higher attachment anxiety. We also did not find the expected decline of alliance quality over the course of therapy for preoccupied therapists. Instead, preoccupied therapists showed a slight increase in alliance quality towards the end of therapy. However, our finding that preoccupied therapists have a lower overall level of alliance quality corresponds to the reduced alliance quality of therapists with high attachment anxiety at session 7 reported by Sauer et al. (2003). This finding might also match the results of Rubino et al. (2000), who found a lower degree of empathy in therapists with higher attachment anxiety as assessed by questionnaire. One could speculate that a lower degree of empathy might be a possible mechanism explaining why more preoccupied therapists in our study had lower levels of alliance quality. Therapists with higher degrees of

attachment preoccupation might be too involved with their own fear of abandonment and desire for closeness, resulting in a reduced capacity to respond with true empathy to their patients' need. A second possible explanation could be that the hyperactivating attachment strategies displayed by preoccupied individuals in attachment relationships (clinging, effort to control others in order to minimize distance) also occur in the professional therapy relationship. This might lead patients to draw back from the therapist and experience the alliance as less positive.

Therapists with higher attachment preoccupation had slightly increasing alliance curves towards the end of treatment, while the opposite was true for therapists with lower preoccupation. Even though this difference does not seem large (the coefficient from the multilevel regression analysis is small; also see Figure 1), it is possible that different mechanisms apply for preoccupied therapists than for their more dismissive colleagues. One can speculate that preoccupied therapists are more relationship-oriented than their colleagues and that patients of preoccupied therapists experience the therapeutic relationship as more central for their psychotherapeutic process. This might lead the patients to attribute their symptom reduction more to their therapists, feeling thankful towards their therapist towards the end of treatment.

We did not find any influences of therapists' attachment security-vs.-insecurity dimension on the therapeutic relationship. In this study, insecurely attached therapists were as successful in establishing therapeutic alliances as their securely attached colleagues, contradicting the hypothesis that secure therapists can adapt better to their patients' needs and construct better alliances (Halpern, 2003). It is possible that the professional skills of the therapists in this highly selected therapist sample of a university clinic outweighed the influence of attachment security. The insecurely attached therapists in this sample may have more problematic personal relationship representations, but seem very able to relate to their patients in a positive and meaningful way.

The lower overall level of alliance quality that preoccupied therapists showed in this sample was not found in a larger study on the influence of therapists' attachment, where retrospective alliance ratings were investigated and which also included the twelve therapists that were studied here (Schauenburg et al., under review). We assume two reasons for the diverging results: First, retrospective alliance ratings are likely to be influenced by outcome. It seems reasonable that the weekly IES alliance measures are able to capture greater subtleties in patients' perception of the alliance, simply because they are assessed throughout treatment.

A second reason for the different results of the two studies is that alliance ratings of preoccupied therapists approached those of other therapists towards the end of therapy. Therefore it would be more difficult to detect differences in alliance quality with a retrospective measure.

The associations between therapists' attachment representations and alliance development found in this sample are preliminary and cannot be generalized. Some limitations have to be taken into account. First of all, the therapist sample (N=12) is very small and needs to be increased in future studies. We looked at a very selected sample, as only psychodynamic oriented therapists were included. Future studies should concentrate on a more representative therapist sample or even compare therapists from different theoretical orientations. Finally, it is unclear to what extent the alliance to an individual therapist in inpatient psychotherapy differs from the experience of a therapeutic alliance to a therapist in outpatient therapy. These issues demand for caution in generalizing the results from this study to other therapist populations in different settings.

We believe, however, that this study will be of interest to psychotherapy researchers despite of its limitations. We used extensive interviews and a standardized coding procedure to assess therapists' attachment representations. We also included a sufficient number of patients per therapists. These methodological strengths do not compensate for the low sample size, but increase reliability of the findings.

So far, only very few studies have been published that investigated influences of therapist variables on alliance development. This study demonstrates the possibility of reducing a complex development course over time to a few parameters that can be related to therapist (or potentially patient) variables in a second step. We hope that future research will continue to look at similar process variables and investigate alliance development over time.

IV SUMMARIZING DISCUSSION

Interest in therapist characteristics has a long tradition in psychotherapy theory and research and many studies have investigated the influence of therapist characteristics in outpatient therapy settings (Beutler et al., 2004). Building on this research, the empirical studies included in this dissertation investigated the influence of therapist characteristics in an inpatient psychotherapy setting. As no other studies with an adequate sample size related to this subject have been published before, this work can be considered one of the first empirical investigations of therapist variables in inpatient psychotherapy. In the following section, the results and conclusions derived from the empirical studies of this dissertation will be summarized and discussed against the background of findings on therapist variables in outpatient treatment.

1. General discussion

Before relating any therapist variables that are of theoretical interest to therapeutic outcome, it was important to test whether therapists differ in their patients' outcome after inpatient therapy, i.e. if some therapists are more effective than others (study 1). Previous studies had shown that therapists in outpatient treatment are differentially effective with regard to their patients' symptomatic improvement during psychotherapy. However, apart from pilot work of our research group, no studies had been published investigating therapist effects in inpatient therapy. In study 1, in addition to therapists' influence on their patients' symptomatic improvement, the therapeutic alliance was included as second dependent variable. This was done for several reasons: based on theoretical work (Orlinksy & Howard, 1987) as well as empirical findings from outpatient therapy (Baldwin et al., 2007; Hilliard et al., 2000), it was assumed that a substantial share of the therapist's influence on outcome was exerted via the therapeutic alliance. The therapeutic alliance is one of the few well-researched process factors and has been related to outcome over and over again. To date it can be concluded that the alliance is a robust – though moderate – predictor of outcome (Martin et al., 2000). Therefore, understanding factors that cause variations in the formation of positive alliance formation are of interest. The empirical findings of the first study confirmed the main predictions concerning outcome and alliance. Therapist effects on outcome were present (i.e. significant) in the inpatient sample under investigation, but were smaller when compared to therapist effects in outpatient samples. Looking at the patient-rated measure, only 3% of the outcome variance was due to therapists, while therapist variance shares in outpatient therapy range

between 5 and 9% (Lutz et al., 2007; Wampold & Brown, 2005). This finding is not surprising, given that in addition to individual psychotherapy, a number of other therapeutic elements contribute to the success of inpatient therapy compared to the dyadic outpatient setting. However, therapist differences in alliance ratings were substantial and considerably larger than outcome differences. The 33% variance in our sample that were due to therapists correspond to the finding from Hatcher et al. (1995) who reported that up to 29% of alliance ratings in outpatient therapy were explained by therapists. The large therapist effect on alliance is particularly noteworthy, because the therapist effect on outcome is smaller: Alliance ratings were obtained in retrospect at the termination of treatment, which increases the likelihood that they were partially influenced by outcome. Studies on the relation between alliance and outcome have shown that in addition to a positive effect a high-quality alliance has on outcome, symptom improvement may also be followed by an increase in patient-rated alliances (Tang & DeRubeis, 1999). However, the retrospective alliance measure used in the study of therapist effects was able to capture unique and therapist-specific aspects of the patient's perspective of the relationship with the therapist that were not covered by traditional symptomatic outcome measures.

Studies 2 and 3 aimed at the explanation of the therapist variance in global alliance and outcome. In both studies, therapist personality traits that were assumed to be relevant for interpersonal behaviour were investigated. In the second study, therapists' interpersonal problems were assessed with the IIP and therapists' scores for their interpersonal dimensions affiliation and control were computed. Therapists' affiliation and control scores were then related to patients' retrospective global alliance ratings and symptomatic improvement. Patients' interpersonal dimensions as well as interactions between therapists and patient variables also were included in the analysis. Even though there has been a long tradition using the IIP for the prediction of therapeutic outcome, only few studies have been conducted in the context of inpatient therapy and no studies have investigated the influence of therapists' interpersonal problems in inpatient psychotherapy. With regards to the influence of therapist variables, the results were somewhat unexpected as we did not find the expected positive effect of therapists' affiliation on alliance or outcome that had been prominent in studies from outpatient psychotherapy (Henry et al., 1990, Hersoug et al., 2001). In contrast, therapists' interpersonal dimensions affiliation and control were not directly related to alliance or outcome of psychotherapy inpatients. There were also no interaction effects between patients' and therapists' interpersonal dimensions, as had been found for outpatient treatment in previous studies (Andrews, 1990; Kiesler & Watkins, 1989). This suggests, that in the context of inpatient

therapy, neither Kieslers' (1983) proposition of complementarity, i.e. similar affiliation and opposite control, nor a deviation from this pattern in interpersonal "styles" of therapists and patients was helpful. Based on the first study, this finding was less surprising for outcome, because only a very small percentage of variance was explainable by therapist variables. However, the finding that therapists' interpersonal variables did not influence patients' perception of the therapeutic alliance was contrary to prior expectations and comprises a challenge for discussion. The most salient explanation is that therapists' professionalism and their skilfulness served as a buffer and balanced out general tendencies to behave in interpersonal situations, allowing therapists to behave flexibly according to each patient's momentary needs. An alternative explanation pertains to the measurement of typical interpersonal problems. The IIP may be too broad and not therapy-specific enough to grasp an underlying style of therapist interpersonal behavior. Revisiting the previous studies on therapist effects, Henry et al. (1990) obtained their ratings of therapists' interpersonal style through extensive observations of actual therapist behavior in sessions. It is not surprising that observed therapist in-session behavior is more closely related to patient outcome than general self-reported interpersonal problems the therapists experience in their personal life. Hersoug et al. (2001), on the other hand, also used the IIP to predict alliance in outpatient therapy with therapists' interpersonal dimensions. They found that interpersonal problems related to the cold dimension, i.e. low affiliation predicted lower alliance qualities. However, the effect size of their finding was low, indicating that this association might be rather small. The third explanation for the nonsignificant influence of low therapist affiliation pertains to the distribution of interpersonal problems related to affiliation. In the therapist sample, the distribution of interpersonal problems was distorted towards the affiliation side. Low affiliation in the sense of dismissiveness or hostility was not reported. As the previous studies by Hersoug et al. (2001) and Henry et al. (1990) had reported mainly a negative influence of low affiliation in the sense of hostility or interpersonal coldness, this effect would be difficult to detect in a sample where interpersonal problems lie mainly on the side of "too friendly". One would need to observe therapist actual interactions in greater detail in order to evaluate the effects of singular hostile behaviors, which might also occur in therapists who describe themselves as "too friendly".

The third study investigated the influence of therapists' attachment representations on retrospective alliance ratings and outcome. Based on theoretical propositions of Bowlby (1988) and others (Farber et al., 1995; Halpern, 2003), it was assumed that the therapist might function as an attachment figure for the patient. Especially the concept of a secure base seems relevant for psychotherapy, as a therapist providing a secure base might facilitate the difficult

and often painful process of understanding and change for patients in treatment. According to attachment studies on caregiver relationships in parents and children (van Ijzendoorn, 1995) as well as between adult couples (Crowell & Waters, 2005), adult attachment representations can be predictive of a person's ability to function as a secure base. It was therefore hypothesized that attachment representations are also relevant for professional caregiving in psychotherapy and would manifest themselves in better alliance quality and therapeutic outcome of securely attached therapists. Therapists were classified with the AAI and their attachment representations were related to retrospective alliance and three outcome measures in a multi-level regression model. Attachment security on a dimensional measure, derived from the scoring sheet of adult attachment representations (Waters et al., 2007) was not directly associated with alliance or outcome. However, attachment security was a positive predictor of outcome, when therapists treated patients with high initial psychopathology, i.e. patients who reported high levels of interpersonal distress, high symptom load and who were rated as highly impaired by their therapists. Unfortunately, there are no data on therapist attachment assessed by interviews to compare the results with. However, the finding seems clinically plausible, as more disturbed patients will be more difficult to treat and require greater interpersonal flexibility on the side of the therapists. In addition, previous studies on self-reported attachment styles of therapists also reported insignificant findings on the direct relation between therapists' attachment security and alliance ratings. One exception is the study by Black et al. (2005), who reported a positive association between therapists' self-reported attachment security and alliance quality, also rated by therapists. A direct positive effect of attachment security in the present dissertation was only found for the global impairment score as rated by therapists. It seems possible that therapists with secure attachment representations might evaluate the results of their own work in a relatively healthy, i.e. self-esteem-enhancing way and experience the alliance as well as the outcome of their patients more positively than insecurely attached colleagues.

The fourth study investigated the influence of therapists' attachment representations on the development of the psychotherapeutic alliance over the course of inpatient treatment. This was done, because the global alliance rating included in the third study might not have captured subtle influences of attachment on therapists' ability to form alliances with their patients. The alliance measure was very broad and might be blended with patients' general satisfaction at termination. Although therapists' attachment representations did not influence the retrospective and broad evaluation of the alliance directly (i.e. as main effect) in study 3, it was hypothesized that therapists' attachment might influence the pace in that therapists were

able to form a positive alliance to their patients. In addition, therapists' attachment representations were also assumed to be relevant for the preparation and handling of the patient-therapist separation towards termination. For a subsample of therapists investigated in study 3, weekly measures of alliance quality were available. We therefore analysed the weekly alliance ratings over time of 12 therapists in a three-level regression model (HLM) with emphasis on the beginning and termination of treatment. The curve of alliance ratings was predicted with therapists' attachment dimensions derived from the AAI scoring sheet. The dimension security-vs.-insecurity did not influence alliance development. However, the dimension dismissiveness-vs.-preoccupation was a predictor of the alliance over time: while the shape of the curve was similar for all therapists in the beginning phase of treatment, the degree of therapists' attachment preoccupation influenced the level of alliance quality as well as the form of the curve towards the end. Lower scores on the dimension dismissiveness-vs.-preoccupation, indicating higher levels of attachment preoccupation of the therapist, were associated with lower alliances in general. However, the alliance curve of patients treated by preoccupied therapists increased in the end, which was not the case for other therapists. The results of the fourth study can be compared to only one published study that investigated the influence of therapist characteristics on alliance development. Interestingly, this study also investigated the influence of therapists' attachment (Sauer et al., 2003). However, they assessed therapist attachment via self-report, which tends to correlate only weakly with interview-based measures, and investigated outpatient psychotherapy. The two studies therefore show similarities with regard to the research questions of interest, but also differences concerning the methodological approach and the sample under investigation. The findings of both studies are also somewhat different: While Sauer et al. (2003) reported that therapists' attachment anxiety (which is assumed to be high among preoccupied individuals) was related to steeper increases in alliance ratings in the beginning phase of treatment, *all* therapists in this study showed relatively large increases of alliance ratings during the first weeks. However, the distribution of the AAI dimension dismissiveness-vs.-preoccupation was skewed towards the side of preoccupation. It is possible that as most therapists had relatively high levels of preoccupation, a similar tendency of steep increases for preoccupied therapists was present in the current therapist sample and could not be detected due to diminished variance in attachment preoccupation. Sauer et al. (2003) also reported an association between attachment anxiety and lower alliance ratings later on in treatment. This corresponds to the finding of the present study, that more preoccupied therapists had lower alliance ratings in general. An increase of alliance curves towards the end of treatment for preoccupied therapists was not found by

Sauer et al. (2003). However, the magnitude of increase in alliance in the last phase of therapy was fairly small, which highlights the necessity to replicate this finding in larger samples.

Taken together, the results of the four studies point to the conclusion that the influence of therapists' personality characteristics is not uniform for all patients treated with inpatient psychotherapy. Both constructs under investigations, interpersonal dimensions according to Leary (1957) as well attachment representations according to Bowlby (1988) exert their influence not directly. Instead, they interact with patient variables. This pattern of influence is well known for most therapist personality variables in outpatient therapy (Beutler, 2004). Furthermore, this pattern has also been found in a closely related domain: A recent review on the influence of attachment in psychotherapy, which also looked at the influence of self-reported attachment styles of therapists in outpatient therapy, concludes that "... the relationship between therapist attachment patterns and the alliance might seem less straightforward than the relationship between client attachment patterns and alliance" (Daniel, 2006, p. 977). Daniel hypothesizes that might be due to two reasons: First of all, the asymmetrical roles between patients and therapists prohibit the therapist from bringing his or her personal needs and desires into the therapeutic relationship as much as patients do. Secondly, she assumes that therapists might be more similar with regard to attachment measures compared to patients among each other. It would therefore be more difficult to detect effects of therapist attachment and require studies with larger sample sizes on the therapist level, which have not been conducted yet.

Given that the pattern of influence of investigated therapist variables through indirect effects moderating the influence of patient variables is similar compared to the influence of therapist variables in outpatient therapy, an attempt is made in the next section to integrate the present findings into the generic model of psychotherapy by Orlinsky and Howard (1987).

2. Integration of the findings into the Generic Model of Psychotherapy

The generic model, already mentioned in chapter I was developed by Orlinsky and Howard (1987) as a conceptual framework. It provides a context for understanding the different levels at which subsequent empirical findings linking process factors to outcome in psychotherapy reside. The model distinguishes between ongoing processes in psychotherapy as a system of action, and several surrounding systems that constitute the functional environment of therapy. The interactions that take place between patient and therapist constitute the therapeutic process. However, the persons who are interacting in the roles of patient and therapist are part of the functional environment of therapy in which the process takes place. Each person is considered a separate self, each has a separate history and each separately has roles in many other relations in a life outside of psychotherapy. The influence between the interactions in therapy and the patients' as well as the therapists' personality are assumed to be bidirectional. In addition to the person of the patient and the person of the therapist as individual factors, several other factors build the collective part of the functional environment, e.g. the society and its social institutions and cultural patterns, the treatment delivery system et cetera. Each of those variables should influence different aspects of the therapeutic process. Process then is differentiated in several subcategories, among which are the therapeutic contract, therapeutic operations, the therapeutic bond and therapists' and patients' self-relatedness. In the present dissertation, only therapeutic alliance as indicator for the emotional bond between patient and therapist was assessed. The generic model assumes that process variables have several outputs, among which the patients' symptomatic improvement during therapy is an important one and which is more generally referred to as "therapy outcome".

As the variables that were investigated in this dissertation are mostly therapist variables, the following considerations will concentrate on the individual part of the functional environment in which the therapy takes place. Among factors related to the person of the therapist that Orlinsky and Howard (1987) mention are the *sociodemographic variables*. Study 1 tested the influence of therapists' age and gender, but found no influences on outcome or alliance. Nonsignificant findings were also obtained for *therapists' professional status and expertise*, which are named by Orlinsky and Howard (1987) as a second group of therapist variables: neither the primary profession (physician vs. psychologist) nor the professional experience as psychotherapist influenced alliance ratings or outcome. Comparing this to studies on outpatient therapy, the findings for outpatient therapy are similar. Investigations of therapists treating outpatients also failed to find consistent effects for most of these variables, which

would be considered “observable” in the terminology of Beutler et al. (2004). One exception is the professional experience of the therapist, which has been found to be a weak but fairly consistent predictor of outcome in outpatient therapy (Beutler et al., 2004). However, effect sizes vary substantially between outpatient psychotherapy studies and interaction effects with patient variables are also present. For example, therapist experience may be related to the width of diagnostic groups with which one therapist is effective (Luborsky, McLellan, Woody, O’Brien, & Auerbach, 1997). The therapists included in the empirical studies for this dissertation showed substantial variance in their therapeutic experience: in study 1, the mean experience was 9.9 years, but the standard deviation of 8.3 indicates that very inexperienced therapists as well as truly senior therapists were included. However, the therapist sample is far from representative, therefore further studies are needed in this context.

The third group of therapist variables proposed by Orlinsky and Howard (1987) is the *life situation* of the therapist. As no variables from this category were tested in the empirical studies, no conclusions can be made from our data. The last category listed in the Generic Model pertaining to the therapist is the *therapists’ personal style*. Both therapist trait characteristics (the dimensions underlying therapists’ interpersonal problems and attachment representations) that were investigated in the empirical studies fall into this group. Apart from the influence of the therapists’ attachment dimension dismissiveness-vs.-preoccupation, which was related to the general level of alliance quality as well as the shape of the development curve towards termination in the fourth study, therapists’ styles assessed with regard to relationships did not influence patients’ perspective of the alliance and their symptomatic outcome directly. However, there were some interesting and potentially meaningful interaction effects with patient variables. In the third study, therapists’ dimensional attachment security served as a moderator for the influence of patients’ initial disturbances on alliance ratings and outcome. Secure therapists established good alliances with highly disturbed and interpersonally “difficult” patients, which reduced the overall negative impact of greater psychopathology of the patient on outcome. In the second study, therapists’ affiliation emerged as a moderator of the relationship between therapeutic alliance and outcome. For therapists who described themselves as “too friendly”, the relation between alliance and outcome was less pronounced compared to therapists whose interpersonal problems were characterized by lower affiliation. This finding is especially interesting with regard to the recent finding of Baldwin et al. (2007), that mainly variation in alliance ratings between therapists is responsible for the relation between alliance and outcome in outpatient therapy. With regard to the different levels defined by the generic model (environment, process, outcome), the patterns of

study 2 and 3 are different. In study three, therapist characteristics interact with classic patient characteristics (their initial level of disturbance). Both variables are on the level of the functional environment in which the therapy takes place. In the second study, however, the therapists' personality as part of the functional therapy environment was found to moderate the relations between alliance, i.e. a process variable, and outcome. This distinction should be kept in mind, although the statistical models which were tested for the two studies treat both alliance and patients' initial impairment as "patient variable".

The general findings on therapists' personal style, referred to as "inferred traits" in the terminology of Beutler et al. (2004), and outcome in outpatient therapy have been reported in chapter 1.2.1 of the theoretic overview. Interactions with patient variables are more often present than simple main effects of therapist variables on outcome. Beutler et al. (2004) conclude that therapist relational variables, which influence outcome via the therapeutic alliance, are among the most promising research targets if one is interested in understanding the influence of therapist effects on outcome in psychotherapy. As discussed above, the impact of therapists' interpersonal problems and self-reported attachment styles on alliance have previously been investigated for outpatient therapy and provide a reference point for the interpretation of the present data. The influence of therapists' interpersonal problems seems smaller in inpatient psychotherapy, as no negative influence of low affiliation was found. The influence of therapists' attachment representations, although never assessed with the AAI in outpatient samples, seems to be similar in that there was no direct influence on patient-rated outcome. However, the moderating effect of therapists' attachment security on the impact of patients' initial disturbance and interpersonal distress seems to be especially relevant in inpatient psychotherapy. The inpatient setting allows the treatment of more severely impaired patients, who sometimes cannot cope with the less structured outpatient treatment. It is possible that because the difficulties of patients included in this study are more severe than the problems of typical outpatients, this sample effect allowed the detection of the moderation effect.

Closing the reflections on the current findings in the light of the generic model of psychotherapy, it is important to say that only one process measure, the therapeutic alliance was investigated. Orlinsky and Howard (1987) state that the alliance is only one of several aspects of psychotherapeutic process. More detailed process measures would be necessary in order to grasp the therapists' influence on the actual interactions that take place in inpatient psychotherapy between patients and therapists.

3. Major strengths and limitations

As most other empirical investigations, this dissertation shows certain strengths but also some weaknesses, which both have to be taken into account when addressing the clinical significance of the findings. Most prominent among the weaknesses is the retrospective assessment of the therapeutic alliance, which has been discussed in great detail in the discussion sections of the corresponding empirical studies. The problematic aspect about the retrospective alliance measurement is that one assumption, namely that the two therapist variables under investigation would influence the therapists' ability to form positive alliances, which would *thereupon* result in positive or negative outcomes, cannot be tested directly. The present design only allows a correlative identification of empirical associations of the therapist variables with alliance and outcome. Alliance measurements during early phases of therapy would be necessary to test the mediation hypothesis formulated above.

A second weakness pertains to the sample size of therapists that could be included. From the first to the fourth study, the therapist sample dropped from 50 to twelve. A sample size of 50 on the highest level is adequate for multilevel analyses, a sample size of 31 therapists in the second and third study is just above the required minimum of 30 units (Hox, 2002). However, the 12 therapists that could be included in the fourth study are not enough in order to come up with conclusions that can be generalized to other inpatient therapist samples. Therefore, the findings from the fourth study should be treated with caution and might rather serve as an explorative pilot study. On the other hand, the methodological approach with a 3-parameter regression model for the modelling of alliance development proved of value, and secondly, the findings can generate new hypotheses about the influence of therapists' attachment preoccupation. However, the results need to be replicated in larger samples.

A third weakness is the selection of therapists included in the four studies. The main theoretical orientation of all participating clinics was psychodynamic and therapists also had a mainly psychoanalytic/psychodynamic background. When investigating common factors, one should assume that their influence may be similar across different theoretical orientations; however this cannot be claimed unless it is tested empirically. It is therefore unknown, whether therapist attachment has the same effect in psychodynamic as in cognitive-behavioral or other treatments, especially when the research on attachment influences reaches a stages that allows the deduction of specific, evidence-based guidelines for therapeutic practice.

Besides these weaknesses, the studies included in this dissertation show some major advantages. The first one ironically pertains to the sample size (again): Even though the number of therapists in the fourth study seems problematic, the number of therapists included in study one to three is a positive exception in the literature on therapist effects, where often small-scale studies with a significantly lower numbers of therapists are published (Beutler et al., 2004; Soldz, 2006). In addition, each therapist included in this study treated a relatively large number of patients (minimum of ten patients for studies one to three, overall patient sample exceeds 1,000). This increases the likelihood that more reliable estimations of therapists' actual ability to form alliances or reach positive outcomes are achieved and allows the investigation of interaction effects between patients and therapists.

A second strength of the present work is the use of the AAI in studies three and four. Interview-based measures of attachment are more expensive and time-consuming compared to self-reports, but in exchange they allow for classifications with greater external validity. Especially with regard to general adult caregiving behavior, the classical findings from which the hypotheses had been deduced were all obtained from studies using expert ratings for standardized assessment procedures, mainly the AAI. A basic principle in experimental science is that variations of several factors at a time is problematic for the interpretation of new effects, as it is not clear which manipulation caused the new effect.

A third strength of the study is the relatively sophisticated multilevel approach that was used for the statistical analyses of the nested data, including a 3-level model in the fourth study. Multilevel models are becoming increasingly popular in psychotherapy research, as oftentimes repeated measurements are nested within patients, or patients are nested within therapists (as was the case the present study) or therapists are themselves nested in organizations, cities, theoretical approaches and numerous other variables. The multilevel models allowed the computation of interaction effects between variables on the patient level with therapist variables without having to aggregate or disaggregate data.

Another major strength of our research is that it may serve as a positive reference and as an icebreaker for future studies on therapist factors in psychodynamically oriented settings. The participating therapists were sceptical in the beginning, presumingly because a scientific, quantifiable evaluation of therapist factors is not very common in the psychodynamic community (apart from clinical reflections in personal therapy and supervision, of course). Especially the possible evidence-based identification of "good" and "bad" clinicians caused fear among therapists. However, the strict level of anonymity that was guaranteed as well as a de-

tailed theoretical introduction about the clinical relevance of the work resulted in high acceptance levels. From 21 therapists that were approached for the attachment study in one clinic, 19 participated and all therapists from the second clinic participated in the attachment study. Furthermore, during the ongoing study, new therapists joined the clinic, heard about the study and asked to also be included. Therapists reported that they enjoyed the attachment interview and all therapists wanted to know their attachment classification as well as their outcome ranking in relation to other therapists after the study was completed.

The four studies that make up this dissertation comprise the first systematic and empirical investigation of therapist factors in inpatient psychotherapy. The investigation of therapist factors seems of high clinical significance, as they represent a possible starting point for treatment optimizations. The large share of patient influence on outcome variance has to be taken as a prerequisite in psychotherapy, as a low motivation to change, high symptom load, and numerous other patient variables related to negative outcomes are part of the problem that should be approached by the treatment. However, this is different for therapist variables: if the understanding about possible negative influences of certain therapist variables (as well as knowledge about the positive influence of others) increases, this knowledge might change therapeutic manuals, general therapist training, supervision and therapists' personal reflections in therapy.

4. Future Prospects

While this dissertation project was designed to answer the research questions that were developed in section II, in the end our results provided a new set of unanswered questions as well as unquestioned answers. This appears to be a natural process in conducting research; however some of the new questions as well as some lessons learned throughout the course of this research project are being discussed in this last section.

The individual therapist appeared to have some influence on the treatment outcome in the specific context of inpatient psychotherapy. However, in order to better understand the influence of therapist variables in this specific setting, one would have to investigate interaction effects between individual therapy and other therapy components. While ethical reasons forbid the experimental variation of different qualities of therapy components, the study by Kordy, von Rad, and Senf (1990) show that an evaluation of the effects of therapeutic components in an additive design is feasible. It would be of high clinical relevance to see, for example, if the individual therapy has a specific function in times with high levels of interpersonal conflict on the ward or otherwise demanding times and how that might change with different patient groups.

The previously mentioned mediation effect of the therapeutic alliance on the relation between therapist variables and outcome could not be tested in the naturalistic studies reported here. However, simply assessing the therapeutic alliance at earlier time points in therapy seems fairly easy to implement and would greatly improve the explanatory power of future studies. In addition to earlier ratings of the therapeutic alliance, more process measures should be implemented in order to understand and demonstrate empirically why some therapists are more successful than others. Interpersonal problems as well as attachment representations are likely to influence micro-analytic interactions between patient and therapists. Therefore, the investigations of therapists' reaction to different relationship-relevant issues by patients appear to be a promising level of analysis. Considering that the overall outcome differences between therapists were rather small, while alliance differences were high, it remains interesting why some therapists are "successful", although they establish less positive alliances with their patients. Standardized observations of therapists' in session behaviour might also help to explain the large therapist effect on alliance ratings that was identified in study 1 and which could not be explained sufficiently with the variables investigated in studies 2-4.

The last point that will be made concerns the attachment nature of the therapeutic relationship. While Bowlby (1988) and other theorists have *assumed* that the therapeutic relationship contains aspects of an attachment relationship, this has not been tested systematically. Following the great popularity that attachment theory is currently receiving in psychotherapy research, it seems a very basic and important issue to clarify whether and when the therapist fulfils the function of an attachment figure for the patient and whether his or her own attachment system interferes with caregiving abilities. Attempts in this direction have been made by several groups who constructed self-report scales similar to the “client attachment to therapist scale” CATS (Mallinckrodt, Gantt, & Coble, 1995). However, the same problematic issues that arise with the assessment of attachment representations via self-report also seem to apply here. The “patient-therapist AAI” developed by Diamond (Diamond et al., 2003) appears to be an interesting approach, as the operationalization of attachment closely leans on criteria of the regular adult attachment interview.

Therapist variables in inpatient psychotherapy remain an interesting, challenging and clinically relevant field for further research. It is a unique feature of the German medical system that the fairly expensive and highly efficient inpatient treatment is integrated into the regular care for psychological difficulties on the structural as well as on more conflict-oriented neurotic levels. This opportunity should not be passed up – in the interest of future patients as well as for scientific progress.

V SUMMARY

The focus of this dissertation was on the investigation of therapist variables in the context of inpatient psychotherapy. While the study of influential therapist characteristics has a longer tradition in outpatient psychotherapy, considerably less is known about the impact of individual therapists and their personality characteristics on outcome of multimodal inpatient treatment. Accordingly, the empirical studies comprising this dissertation were designed to investigate the therapist's influence.

The first study tested the existence and magnitude of therapist effects in the context of inpatient therapy. While previous studies have shown that therapists in a dyadic outpatient setting are differentially effective, as some reach greater symptomatic improvement with their patients than others, therapist effects had not been tested for inpatient therapy. Therefore, a sample of 50 therapists, who had treated 2554 inpatients, was investigated and compared with regard to their patients' retrospective evaluations of the therapeutic alliance as well as therapeutic outcome. Alliance was assessed with the Helping alliance questionnaire (HAQ) from the patients' perspective and both patient and therapist evaluated the symptomatic impairment before and after therapy. The instruments used for the assessment of outcome were the Impairment Score (IS) for therapists and Global Severity Index (GSI) of the SCL-90-R for patients. Therapist effects were tested in a 2-level random effects model. The results showed that although therapist effects on outcome were present, they were smaller compared to the magnitude of therapist differences that has been reported for outpatient therapy. However, therapist effects on alliance were large, indicating that some therapists were more successful in establishing positive therapeutic relationships with their patients than others.

Based on the finding, that therapists differ in outcome, and especially in alliance ratings, the second study then turned towards the explanation of therapist effects. Specifically, it was tested whether therapist differences might be explained by therapists' interpersonal problems. The sample for the second study consisted of 31 therapists, who had treated 1513 inpatients. Both therapists' and patients' interpersonal problems were assessed with the Inventory of Interpersonal problems (IIP), from which the two dimensions affiliation and control were computed and related to alliance ratings (HAQ) and patient-rated symptomatic improvement (GSI). Main effects as well as possible interaction effects of patients' and therapists' interpersonal dimensions were estimated in a 2-level regression model that also included the therapeutic alliance as predictor. While patient dominance was a predictor of positive outcome, there were no main effects of therapists' interpersonal dimensions. However, therapist affilia-

tion moderated the positive influence of a therapeutic alliance on outcome, as a positive alliance appeared more helpful in therapists, who described themselves fewer problems with being “too friendly” in the interactions with others.

The third study investigated a different construct. Based on theoretical proposition and prior studies in outpatient therapy, it was assumed that therapists’ attachment representations were influential for therapists’ behavior and would impact therapeutic alliances and outcome. The therapist sample, which had also been investigated for study 2, was classified by interview-based attachment measures (Adult Attachment Interview, AAI). AAI of the therapists were coded by an expert rater and related to patients’ evaluation of alliance and three outcome measures (interpersonal distress: IIP, symptomatic impairment: GSI, therapist rating: IS). The distribution of secure and insecure attachment categories among the therapists was comparable to the general population, with 60% of the therapists classified as secure. Instead of the categorical assignment, AAI based dimensional measures of therapist attachment were then tested in a 2-level regression model. Although there was no main effect of therapist attachment dimensions, interaction effects suggest a moderating influence of therapist attachment on the influence of patients’ pre-treatment psychopathology. Therapists’ dimensional attachment security appeared beneficial for both alliances and outcome, when patients were severely disturbed prior to treatment.

The fourth study was designed to investigate the influence of therapist attachment on the formation of therapeutic alliances over the course of inpatient therapy more closely. A subsample of 12 therapists that had been included in study 3 was chosen, because weekly alliance measures of their 282 patients existed. Therapist attachment dimensions derived from the AAI were related to patients’ courses of alliance development in a 3-level model. Alliance development was modelled in a regression with 3 parameters, which emphasized the beginning and termination phase of treatment that were considered to be of particular relevance for the formation of patient-therapist attachment. Dimensional attachment security did not predict alliance development. However, higher therapists’ preoccupation was associated with lower overall levels of alliance quality; in addition therapists with higher preoccupation scores had slightly increasing alliance curves towards the end of treatment, while therapists with less pronounced preoccupation had a slight decrease towards the end of therapy.

Summarizing the findings of the four studies, the individual therapist can be considered a relevant and influential factor for the success of inpatient psychotherapy. Therapists’ interpersonal problems and attachment representations were not directly related to therapeutic

outcome. However, their moderating influence on patient variables indicate that they are nevertheless important.

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