Clinical supervision: Its influence on client-rated working alliance and client symptom reduction in the brief treatment of major depression

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Abstract
Supervision of psychotherapists and counselors, especially in the early years of practice, is widely accepted as being important for professional development and to ensure optimal client outcomes. Although the process of clinical supervision has been extensively studied, less is known about the impact of supervision on psychotherapy practice and client symptom outcome. This study evaluated the impact of clinical supervision on client working alliance and symptom reduction in the brief treatment of major depression. The authors randomly assigned 127 clients with a diagnosis of major depression to 127 supervised or unsupervised therapists to receive eight sessions of problems-solving treatment. Supervised therapists were randomly assigned to either alliance skill or alliance process focused supervision and received eight supervision sessions. Before beginning treatment, therapists received one supervision session for brief training in the working alliance supervision approach and in specific characteristics of each case. Standard measures of therapeutic alliance and symptom change were used as dependent variables. The results showed a significant effect for both supervision conditions on working alliance from the first session of therapy, symptom reduction, and treatment retention and evaluation but no effect differences between supervision conditions. It was not possible to separate the effects of supervision from the single pretreatment session and it is possible that allegiance effects might have inflated results. The scientific and clinical relevance of these findings is discussed.

Clinical supervision has traditionally been considered an important part of training and the professional development of therapists, being rated highly in the experience of trainees as well as practitioners in the field (Orlinsky, Botermans, & Ronnestad, 2001; Steven, Goodyear, & Robertson, 1998). Bernard and Goodyear (1992) found that therapists assessed supervision as an indispensable training activity that increased both self- and therapeutic awareness. Further, therapists have rated supervision highly as an educational procedure that develops treatment skills and professional competency (Steven et al., 1998).

In Australia, supervision is considered an important posttraining professional activity and is not restricted to the graduate training setting. During supervision, a supervisor and therapist may systematically examine case-specific treatment and process issues as a method of enhancing both therapist awareness and skills necessary to manage the complexities of client work. Within the practice of psychotherapy and counseling, there is the expectation that supervision might enhance the clinical impact of therapeutic intervention. Therefore, a supervised therapist might reasonably expect to achieve greater clinical outcomes in client work than an unsupervised therapist (Steven et al., 1998).

The proposition that supervision is a procedure that can enhance client outcome appears to be an assumption based on its historical importance in the training and practice of psychotherapy and has not been subject to adequate empirical investigation. There have been 32 published reviews of empirical studies of clinical supervision and counselor training since 1988 (Bambling & King, 2000); most conclude that, although we know a lot about the process and characteristics of supervision, particularly in the graduate training setting, little empirical evidence exists regarding the effect of supervision on achieving measurable clinical outcomes for clients. General criticism of the supervision literature includes problems of inadequate power, poor methodology, Type

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I and II errors, and an absence of outcome research (Bambling & King, 2000; Ellis, Ladany, Krengel, & Schult, 1996; Holloway, 1996; Watkins, 1998).

However, the existing supervision research provides four reasonably robust findings that suggest supervision has the potential to enhance measurable client symptom outcome: (a) A positive supervisory relationship increases supervisee tendency to model and accommodate observed supervisor therapeutic skills and may enhance supervisee’s demonstration of the same therapeutic skills in client work (Pierce & Schauble, 1971; Schacht, Howe, & Berman, 1989); (b) supervision reduces supervisee anxiety and role ambiguity and enhances confidence in counseling practice (Friedlander, Keller, Peck-Baker, & Olk, 1986; Kennard, Stewart, & Gluck, 1987); (c) supervision contributes to the development of basic counseling skills, although its impact on the development of more complex counseling skills is unclear (Lambert & Ogles, 1997); (d) supervision may assist therapists to manage working alliance and resolve therapeutic impasses (Alpher, 1991; Patton & Kivlighan, 1997).

Although this evidence suggests that supervision might have the potential to enhance client symptom outcome in therapy, the research focus to date has been on the impact of supervision on supervisory alliance, therapist approach, confidence, and core skills rather than on clearly defined client outcomes such as symptom reduction (Bambling & King, 2000; Ellis et al., 1996, Ladany, Ellis, & Fridlander, 1999). However, the general focus of the existing research allows some speculation regarding two possible pathways of action for supervision on client outcome. Two pathways are of particular interest; supervision may enhance clinical outcomes for clients by influencing the working alliance between therapist and client (Patton & Kivlighan, 1997) and may provide a method of training therapists how to manage interpersonal processes in therapy (Lambert & Ogles, 1997).

The working alliance represents a usable supervisory construct because it is measurable and has a robust relationship with symptom improvement and quality of therapeutic work (Horvath & Bedi, 2002; Martin, Garske, & Davis, 2000). Utilizing supervision to enhance therapists’ use of alliance management techniques is consistent with evidence that therapist training can have a positive effect on client-rated working alliance (Hilsenroth, Ackerman, Clemence, Strassie, & Handler, 2002).

In the treatment of depression, client-rated working alliance appears to have an independent effect on client outcome and predicts client outcome better than form of therapy in the psychological treatment of depression. Specifically, early client working alliance scores appear particularly predictive of later alliance scores, client retention in therapy, and client symptom reduction scores in the treatment of depression (Horvath & Bedi, 2002; Krupnick, Stotsky, Simmons, & Moyer, 1996). Likewise, poor client-rated working alliance in therapy relates to poorer outcomes and greater rates of client non-completion in therapy (Bambling & King, 2001; Kivlighan & Schmitz, 1992; Patton & Kivlighan, 1997). Clients with depression are a suitable target group to test an alliance-focused supervision approach because of the sensitivity of depression to alliance effects.

A popular pantheoretical concept of working alliance was developed by Bordin in the late 1970s (Bordin, 1994) and operationalized as a research instrument by Horvath and Greenberg (1989). This view of working alliance provides discrete subcategories of alliance behavior: bond, task, and goal. Bordin (1983) believed that this pantheoretical definition of working alliance was ideally suited as a generic supervision approach that might enhance alliance in therapy.

It might reasonably be expected that an alliance-focused supervision approach could be used to strategically enhance client perception of working alliance. In a disorder such as depression, in which client-rated working alliance and symptom outcome appear strongly related, increased client-rated working alliance might provide the mechanism by which supervision may enhance client symptom outcome.

In view of an absence of empirical data concerning the kind of supervision most likely to promote therapist behavior that advances alliance, we decided to test two different supervision approaches. These were derived from two dominant traditions in psychotherapy and psychotherapy supervision. In one approach, the supervisor focused on the development of therapist skills thought to enhance alliance (alliance skill focus). In the other, the supervisor focused on therapist awareness of and sensitivity to the therapeutic relationship (alliance process focus).

We hypothesized the following:

Hypothesis 1: Clients who receive supervised therapy for major depression will demonstrate higher working alliance scores compared with a control group of clients who receive the same type of therapy but from unsupervised therapists.

Hypothesis 2: Clients receiving supervised therapy for depression will demonstrate a greater reduction of Beck Depression Inventory (BDI) scores, assessed at treatment end, compared with a...
control group of clients who receive the same type of therapy but from unsupervised therapists.

Hypothesis 3: Clients receiving supervised therapy will evaluate their treatment more positively compared with a control group of clients who receive the same type of therapy but from unsupervised therapists.

Hypothesis 4: Clients receiving supervised therapy will be more likely to complete treatment compared with a control group of clients who receive the same type of therapy but from unsupervised therapists.

Hypothesis 5: The supervision process approach that focuses on creating awareness of interpersonal processes to manage working alliance in therapy will demonstrate different client working alliance scores and reduction of BDI scores at treatment endpoint than skill-focused supervision procedures that focus on behavioral strategies to manage the working alliance.

**Method**

**Design**

This study used a nested design with multiple intervals of measurement. The experimental variable was supervision; levels were process-focus condition \(n = 34\), skill-focus condition \(n = 31\), and no-supervision condition \(n = 38\). Dependent variables were client-rated working alliance in therapy (measurement points at Sessions 1, 3, and 8), client symptom scores (measurement at intake assessment and Sessions 1 and 8), dropout before completion of a full course of treatment, and satisfaction with therapy. The clinical intervention was a standardized therapy approach (eight sessions of problem-solving treatment; PST) that did not vary across conditions. This study received full review and approval from the Behavioural and Social Sciences Ethical Review Committee University of Queensland, Australia.

Participant nesting in the experimental design was 1:1 therapist \(n = 38\) treating clients \(n = 38\) in the unsupervised condition and 1:1:1 proposed supervisors \(n = 65\) supervising therapists \(n = 65\) and treating clients \(n = 65\) in both skill- and process-focused conditions. This requirement for each participant to be involved in only one treatment condition was to ensure independence of cases and avoid a clustering effect. However, because of resource implications, target supervisor numbers could not be achieved. To address the short fall in supervisor number the first author supervised an equal number of the therapist cohort in each supervised condition: skills focus supervision \(n = 13\); process focus supervision \(n = 13\). The remaining supervisors supervised \(n = 20\) in the process focus condition.

To evaluate researcher-provided supervision for differential effects on Working Alliance Inventory (WAI) scores, an analysis of variance (ANOVA) was conducted with the supervision provided by the researcher and all other supervision cases as two grouping variables. Researcher-provided supervision had no effect on either WAI \((p = .498)\) or BDI \((p = .428)\) scores. As a result, the assumption of no clustering effect was maintained for purposes of the data analysis (see Table I for results). Because supervision may affect variances as well as means, we performed Levene tests to determine whether the homogeneity of variance assumptions for ANOVA was met (see Results section).

PST is an evidence-based brief counseling approach with treatment effectiveness equivalent to antidepressant medication (Mynors-Wallis & Gath, 1996; Mynors-Wallis, Gath, Day, & Baker, 2000). PST is a simplified form of traditional problem-solving therapy (Nezu, Nezu, & Perri, 1989), which probably derives its effectiveness through activation of common factors, because there is no evidence that solutions or problem mastery are specific mediating variables (Mynors-Wallis, 2002). PST was chosen for this study because it can be taught to therapists in a short period of time, and it is likely that treatment effects are more sensitive to alliance that treatment technique. Like traditional problem-solving therapy, there are three main steps in delivering PST: (a) Client symptoms are linked with problems; (b), the problems are defined, clarified, and prioritized, and (c) systematic structured procedures are used to find and test solutions to problems (Mynors-Wallis & Gath, 1997).

**Supervision condition: skill and process foci**

Working alliance process-focus and working alliance skill-focus supervision manuals were developed for this study.

**Process focus.** In the process supervision condition, case discussion focused on assisting therapists to develop an understanding of the interpersonal dynamics occurring during the therapy. Supervision case discussions focused on monitoring implicit client feedback, changes in client anxiety level, flow of exchanges, resistance, and perceived dynamics in the relationship with the therapist. It was expected that increased therapist awareness of the interpersonal processes within the therapy as impacting on alliance would assist therapists to make adjustments
in their approach toward clients that would enhance the alliance. Therapists in this condition were not, however, given specific recommendations for alliance-promoting behavior.

**Skill focus.** In the alliance skill-focus condition, therapists were assisted to apply counseling behaviors to enhance client experience of bond, task, and goals. Supervision case discussion was used to identify client behaviors or characteristics likely to hinder or advance therapy by examining explicit client feedback from session to session, satisfaction with therapy, level of comfort with the therapist, and clarity of therapy goals and client tasks. Unlike the alliance process condition, therapists were given explicit advice and guidance concerning the kinds of behaviors and interventions likely to enhance alliance.

Eight sessions of supervision were provided to match the number of therapy sessions. The first session was provided pretreatment, and the remaining sessions occurred after each of the first seven client therapy sessions.

**Supervision pretreatment meeting**

Therapists allocated to supervised conditions were required to attend a pretreatment supervision meeting with their supervisor during which they were oriented to the supervision model. The training component of the pretreatment session consisted of supervisors instructing therapists in early alliance management principles described in the supervision manual. In the supervision component of the pretreatment session, supervisors and therapists discussed characteristics of the case with an emphasis on applying alliance management principles. Supervisors and therapists had access to client assessment information and histories.

**Participants**

**Supervisors.** Supervisors were volunteers recruited through private practices, mental health services, and journal advertisement. Supervisors were not paid for participation but were given free training accredited by the University of Queensland, Department of Psychiatry, in the supervision approach in return for participating in the study. Participants could use the accredited training for continuing education (CE) points or for other professional purposes. Written informed consent was obtained from supervisors after the purpose and procedures of this study were explained both verbally and through the provision of a written information sheet.

The minimum supervisor requirements were graduate qualifications in a recognized mental health discipline and 2 years of experience providing supervision. Forty supervisors (31 women and nine men)
were recruited and provided supervision to therapists in this study. The average age of supervisors was 49.9 years ($SD = 9.4$, range $= 34–67$ years). Seven (17.5%) supervisors had a doctorate degree; 16 (40%) a master’s degree in psychology; 10 (25%) a master’s degree in psychotherapy; and three (7.5%) a master’s degree in social work; two (5%) were registration-level psychologists; one (2.5%) had a social work degree; and one (2.5%) was a mental health graduate in other disciplines. Supervisors had a mean experience level of 11.2 years ($SD = 4.2$, range $= 2–20$ years).

Supervisors were trained in two separate groups according to expressed preference for the skill or process supervision approach. Most training was conducted at the Department of Psychiatry, University of Queensland, situated at a large public hospital. Training took the form of a 1-day workshop. At the completion of training, supervisors were assessed in the use of skill or process supervision manuals against competency criteria based on supervision role-plays. A rating of competency was part of the selection criteria for participation as a supervisor in this study.

Therapists. Volunteer therapists were recruited through media and journal advertisement. Therapists were not paid but were given free accredited training in PST in return for participating in the study. Participants could use the accredited training for CE points or for other professional purposes. Written informed consent was obtained from therapists after the purpose and procedures of this study were explained both verbally and through the provision of a written information sheet.

Minimum therapist requirements were graduate qualifications in mental health and 1 year of graduate experience providing counseling services to clients. Australia does not have a requirement for doctoral-level qualifications in mental health practice. One hundred twenty-seven therapists (96 women and 31 men) were recruited and trained and gave consent to participate in this study. Therapist mean age was 44.1 years ($SD = 10.1$, range $= 23–67$ years). Six (4.7%) therapists had a doctorate degree, 32 (25%) a registration-level qualification in psychology; 27 (21.3%) a master’s degree in psychology, 27 (21.3%) a master’s degree in psychotherapy, nine (7.1%) a master’s degree in social work, and six (4.7%) a social work degree; 20 (15.7%) were graduates in other mental health disciplines. Mean therapist experience was 8.8 years ($SD = 5.8$, range $= 2–25$) providing counseling services.

Seven recruitments and seven 16-hr PST workshops were conducted over the study period. All participant therapists were required to attend training and were assessed for competence in using the PST treatment manual. Four volunteer therapists accredited in PST assisted the first and second authors as cotrainers at workshops. Trainers and cotrainers rated each therapist participant for demonstrated competency using each stage of PST in workshop training sessions. A rating of competency in PST was required as part of the therapist selection criteria for this study. All potential therapists were aware that after training they would be allocated to either an unsupervised or a supervision condition. Participants were not made aware of the skill–process focus of supervision.

Clients. Client participants were recruited through local mental health networks and media advertising. Treatment was provided free of charge to participating clients, and they would typically attend therapy sessions at rooms provided by the Department of Psychiatry. Written informed consent was obtained from clients after the purpose and procedures of this study were explained both verbally and through the provision of a written information sheet. Appropriate alternate referrals were made for those not meeting the inclusion criterion.

The inclusion criterion for clients was a primary diagnosis of major depression made by the first author using a clinical interview conducted in accordance with the Mini International Neurological Inventory (MINI; Sheehan & Lecrubier, 1998) and the BDI (Beck, Steer, & Garbin, 1987) as an initial screen. Comorbidity along Axis I and Axis II of the Diagnostic and Statistical Manual of Mental Disorders (4th ed.; DSM–IV; American Psychiatric Association, 1994) was tolerated as long as major depression was the primary diagnosis.

Existing medication users were accepted into this study because preexisting antidepressant use has not been shown to either enhance or detract from positive treatment outcome in cognitive–behavioral therapy (Oei & Yeoh, 1999). Antidepressant use was basis for exclusion if started at the time of intake because it might confound the interpretation of gains made in treatment. Clients starting medication at intake were referred or rescheduled for another intake assessment later in the study period depending on their needs and interests. Potential clients were excluded from participation if depression was not the primary diagnosis and on the basis of antisocial personality disorder, active suicidality, psychosis, or incapacity to understand or conform to assessment or treatment requirements. A management protocol, including specialized mental health referral, was developed to deal with potential participants not meeting the inclusion criteria and participant clients who might deteriorate during treatment.
After recruitment and assessment, 127 clients (87 women and 40 men) participated in the study. The mean client age was 39.1 years (SD = 12.0, range = 18–67 years). Forty-two (33.1%) clients had a high school or equivalent education, 24 (18.9%) post-high school or trade/technical qualifications, and 61 (48%) university qualifications. Twenty-four (18.9%) clients were current users of antidepressant medication (typically selective serotonin reuptake inhibitors), whereas 103 (81.1%) were not using medication for depression.

Sixty-six clients (52%) had a diagnosis of major depression only. For the remaining client population, primary comorbidity included agoraphobia (n = 4; 3.1%), social phobia (n = 5; 3.9%), obsessive–compulsive disorder (n = 5; 3.9%), generalized anxiety disorder (n = 33; 26%), and panic disorder (n = 14; 11%). Primary Axis II diagnosis revealed avoidant personality disorder (n = 5; 3.9%), dependent personality disorder (n = 3; 2.3%), obsessive–compulsive personality disorder (n = 1; 0.8%), passive–aggressive personality disorder (n = 3; 2.3%), self-defeating personality disorder (n = 3; 2.3%), narcissistic personality disorder (n = 2; 1.5%), and borderline personality disorder (n = 3; 2.3%). Whereas most clients had a satisfactory level of health, seven reported poor health: ill health (n = 1; 0.8%); chronic ill health (n = 4; 3.1%); and terminal illness (n = 2; 1.5%).

Test instruction

All therapists were provided with a therapist pack that included the treatment manual, study measures, and blank audiotapes individually packaged and marked with instructions for use. A booklet was included that provided detailed instruction for the use of all measures in accordance with the study schedule and all study protocols.

All supervisors were provided with a supervision pack that included the supervision manual and individually packaged measures and detailed instructions for session usage. A booklet was included in the supervisor pack that provided an overview of the supervision assessment, detailed instruction in their use, and a detailed description of the therapist study schedule and all study protocols.

In addition, both supervisors and therapists were instructed in the use of these packs and the administration of all supervision- and therapy-related assessment as part of respective training workshops.

Allocation of study participants

Recruitment of clients and therapists was continual throughout this study. Participants were assigned random numbers on induction. Clients were randomly allocated to unsupervised or supervised skill or process conditions, with the secondary random allocation of therapists to unsupervised or supervised process and skill supervision conditions on a continual bases until cell sizes were achieved (Sheridan, 1979).

Supervisors were matched to either skill or process supervision conditions. A matched approach to supervisor allocation maximized consistency of supervision approach by the removal of variability resulting from differences in experience or significant preexisting variations in style by supervisors.

Data analysis

This study used repeated measures of client working alliance scores and self-rated depression in a nested design. Repeated measures ANOVA was conducted to evaluate the effect of supervision on ratings of client working alliance (WAI) and outcome (BDI) across treatment measurement intervals. Within-subject variables were Assessment Intervals 1, 3, and 8, and the between-subject variables were supervision condition. Dependent variables were WAI and BDI and treatment evaluation scores.

Measures

Intake assessment: pretherapy. The MINI–5 was used as the principal instrument guiding the clinical interview to diagnose depression and comorbidity along Axis I. The MINI was designed as a brief structured interview for the major Axis I psychiatric disorders in DSM–IV and International Classification of Diseases (10th ed.). Validation and reliability studies have demonstrated that the MINI is comparable to the Structured Clinical Interview for DSM (SCID-P) and the CIDI (Composite International Diagnostic Interview) and can be administered in a much briefer period of time (Sheehan & Lecrubier, 1998).

The BDI is a 21-item inventory that is widely used to assess depression severity. It has high internal consistency and correlates highly with other self-report measures of depression and with clinicians’ ratings of depression (range = .60–.90; Beck et al., 1987).

Axis II diagnosis was assessed using the SCID screen and formal diagnostic interview. The SCID has demonstrated fair to good median interrater kappa (.40–.75) based on test and retest reliability studies (Zanarini et al., 2000).

The Social Skills Inventory (SSI) was included to control for therapists’ preexisting capacity to form a working alliance with clients (Crowley, 2000).
SSI is a 90-item instrument designed as a self-report measure to assess basic verbal and nonverbal social communication skills in adults and has high subscale reliability. Total scale reliability is $\alpha = .94$ (Riggio, 1986). SSI results are reported in Table I.

*Assessment during therapy.* In this study the BDI was administered at intake, immediately before Treatment Session 1, and immediately at the completion of Session 8 (endpoint).

The WAI is a 36-item inventory rated on a 7-point Likert scale made up of three alliance subscales assessing bond, task, and goal. Internal consistency of the whole scale is high (range = .87-.93) as it is for the subscales (.92 for bond, .92 for task, and .89 for goal; Horvath & Greenberg, 1989). In this study only client-rated WAI scores for Sessions 1, 3, and 8 are reported.

The Treatment Evaluation Scale is designed to provide a simple subjective client evaluation of satisfaction with treatment and is not intended to be a measure of treatment impact. The scale rates satisfaction with therapy along five items on a 5-point scale administered at the end of therapy. Items include degree that counseling met needs, (b) degree that counseling assisted with problems, (c) satisfaction with time allotted, (d) satisfaction with treatment, and (e) desire for same treatment again. No reliability properties have been reported by Scott and Freeman (1992).

Therapists completed a PST adherence scale that measured the degree of conformity to the therapy approach. Two external raters unaware of supervision conditions rated and rerated therapist PST adherence using audiotapes of the therapy sessions. The PST adherence scale used in this study was developed directly from the clinical steps of PST and successfully used in PST training workshops to develop all therapists for accreditation. It consisted of six items on a 7-point Likert-type scale.

Supervisors used a Supervision Focus Adherence Scale (SFAS) developed for this study to self-rate adherence using audiotapes of the therapy sessions. The SFAS contains 20 items providing separate subscale scores for skill and process focus in supervision. The SFAS demonstrated moderate total scale reliability ($\alpha = .70$) and high subscale reliability for skill ($\alpha = .97$) and process ($\alpha = .92$) focus of supervision.

### Results

Twenty-four clients (18.9%) who did not complete the full course of therapy were excluded from the main analysis to minimize the effect of missing data on sample size, leaving 103 completed cases. Nine clients left therapy after Session 1, eight after Session 2, four after Session 3, two after Session 6, and one after Session 7.

**Preintervention group differences**

Chi-square analysis and ANOVA were used to investigate group differences (process supervision vs. skill supervision vs. no supervision) in respect to client demographic or pretreatment clinical scores or therapist variables. No differences were found. Table I reports pretreatment variables between supervised and unsupervised conditions.

**Homogeneity of variance in WAI and BDI scores**

Variance of end-of-treatment client-rated WAI scores was greater for the unsupervised clients ($SD = 25.1$) than for the process supervision clients ($SD = 19.7$) or the skill supervision clients ($SD = 18.3$). According to Levene’s test of equity of error variance, this difference was significant, $F(2, 100) = 4.2, p < .05$. Variance of end-of-treatment BDI scores was greater for the unsupervised clients ($SD = 9.2$) than for the process supervision clients ($SD = 7.2$) or the skill supervision clients ($SD = 6.7$). According to Levene’s test of equity of error variance, this difference was significant, $F(2, 121) = 4.3, p < .05$. Because ANOVA is robust with respect to heteroscedasticity, these differences were not considered to be of sufficient magnitude to result in spurious results.

**Client-rated working alliance scores**

Repeated measures ANOVA revealed that client-rated WAI scores increased over the duration of the treatment, $F(2, 99) = 22.37, p < .01$ (Table II). Pairwise comparisons with Bonferroni corrections revealed a significant increase in mean WAI score (6.9-point change, $p < .01$) between Sessions 1 and 3 and a further significant increase (6.1-point change, $p < .01$) between Sessions 3 and 8. There was a significant main effect for supervision on the transformed WAI average across measures, $F(2, 100) = 54.9, p < .01$. The interaction between super-

### Table II. Mean client-rated WAI scores across treatment.

<table>
<thead>
<tr>
<th>Week</th>
<th>Unsupervised ($n = 38$)</th>
<th>Skill foci ($n = 31$)</th>
<th>Process foci ($n = 34$)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M$</td>
<td>$SD$</td>
<td>$M$</td>
</tr>
<tr>
<td>1</td>
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<td>218.2</td>
</tr>
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<td>192.4</td>
<td>24.4</td>
<td>225.2</td>
</tr>
<tr>
<td>8</td>
<td>196.7</td>
<td>25.0</td>
<td>233.1</td>
</tr>
</tbody>
</table>

*Note.* WAI = Working Alliance Inventory.
vision condition and WAI measurement session was nonsignificant, $F(4, 198) = 0.882, p = .476$.

Differences among the process supervision group, skill supervision group, and no-supervision group with respect to average WAI scores across the three repeated measures were investigated with pairwise comparisons, using Bonferroni corrections, of the estimated marginal means. This analysis revealed that estimated marginal WAI means of both supervision groups (process supervision = 233.9; skill supervision = 225.5) were higher than that of the no-supervision group (191.6; $p < .01$ in each case). The marginal means of the two supervision groups did not differ significantly ($p = .221$), suggesting no difference between groups.

**Symptoms of depression**

Repeated measures ANOVA revealed BDI scores for the full sample reduced across the repeated measures, $F(1, 120) = 330.4, p < .01$. Pairwise comparisons with Bonferroni corrections revealed a significant reduction in mean BDI scores (1.9-point change, $p < .01$) between intake and pretest and a significant but much greater reduction (22.3-point change, $p < .01$) between intake and posttreatment. There was a significant main effect for supervision on the average BDI score across measures, $F(2, 100) = 6.8, p < .01$. There was significant interaction between supervision group and change in BDI score, $F(4, 242) = 3.9, p < .01$. These scores are represented in Table III, which illustrates lower BDI scores for supervised therapy compared with unsupervised therapy at treatment endpoint.

Differences among the process supervision group, skill supervision group, and no-supervision group with respect to changes in mean BDI scores were investigated with pairwise comparisons, using Bonferroni corrections, of the estimated marginal means of posttreatment BDI scores when intake and pre-treatment BDI scores were entered as covariates. This analysis revealed that estimated marginal BDI means of both supervision groups (process supervision = 6.3; skill supervision = 8.6) were lower than that of the no-supervision group (12.2; $p < .01$ in each case). The marginal means of the two supervision groups did not differ significantly, suggesting no differences between groups ($p = .503$).

**Client treatment evaluation**

Univariate ANOVA revealed that client-rated treatment evaluation scores differed between groups, $F(2, 100) = 13.73, p < .01$. Post hoc group comparisons using Bonferroni corrections showed that both supervision groups had higher treatment evaluation scores ($p < .01$) but that there was no significant difference in effect between skill and process supervision focus on client evaluation scores ($p = .617$).

**Client noncompliance rate**

Supervision demonstrated a strong effect on client attrition rates in this study. Client noncompliance was defined as failure to complete Session 8 of therapy. The unsupervised group had higher rate of client treatment noncompletion than both supervised groups, $\chi^2(2, N = 127) = 23.83, p < .01$. In the unsupervised group, the proportion of clients not completing Session 8 was 21 of 60 (35%); in the skill focus group, 2 of 33 (6.1%); and in the process focus group 1 of 34 (3.0%).

**Supervisor skill and process focus adherence scores (SFAS)**

Skill-focus and process-focus therapists’ SFAS subscale scores were compared using $t$ tests to evaluate self-rated adherence to supervision focus. The process condition revealed a significant difference between process subscale scores ($M = 62.26$, $SD = 7.70$) and skill subscale scores ($M = 42.76$, $SD = 12.20$), demonstrating the expected effect toward process supervision, $t(64) = 33.85, p < .01$. The skill condition revealed a significant difference between skill subscale scores ($M = 60.54$, $SD = 8.70$) and process subscale scores ($M = 45.21$, $SD = 11.67$), demonstrating the expected effect toward skill supervision, $t(64) = 30.48, p < .01$. Each supervision approach was equivalent in the degree of adherence to their respective skill and process conditions, $t(64) = 0.174, p = .678$.

**PST adherence**

Therapist self-rated and independently rated PST adherence was satisfactory in all three groups. There were no differences in adherence between conditions, and supervision did not influence PST adherence, $F(2, 100) = 1.76, p = .177$.

PST adherence intrarater reliability was undertaken on dual independently rated observer PST.
scores. The intraclass correlation coefficient was .8511, $F(12, 434) = 69.0, p < .01$, supporting adequate reliability. There was no significant difference between therapist self-rated PST scores and independently rated observer PST scores, $F(8, 12) = 0.077, p = .926$. Table IV reports therapist self-rated and independently rated PST adherence scores.

**Supervision, PST adherence, WAI and BDI change**

Both therapist-rated PST adherence scores and independently rated PST adherence scores were unrelated to BDI change in unsupervised and supervised conditions ($r = .126, p = .163$). Therapist adherence to PST was not related to client-rated WAI scores in unsupervised and supervised conditions ($r = .131, p = .322$). However, client-rated WAI scores were significantly related to BDI change across unsupervised and supervised conditions ($r = .292, p < .01$). This relationship was stronger in the supervised condition ($r = .396, p < .01$)

**Discussion**

The effect of supervision on client-rated WAI scores

We hypothesized that clients who received supervised therapy for major depression would demonstrate higher working alliance scores compared with a control group of clients who received the same type of therapy but from unsupervised therapists. Client-rated WAI scores were significantly superior for participants in supervised groups compared with those in the unsupervised group, providing qualified support for Hypothesis 1. However, supervision did not influence WAI scores as predicted. Although we anticipated that supervised and unsupervised groups would have similar WAI scores at the end of Session 1, we found that clients treated by supervised therapists had markedly higher WAI scores by the end of the first session of counseling, and this gap was maintained through Sessions 3 and 8, with no further statistically significant widening of the gap.

The first session effect on client WAI scores is consistent that shown in Kivlingham, Angelone, and Swafford (1991), suggesting that our focus on early alliance enhancement techniques in the pretreatment session may have created this unintended effect. During the pretreatment session, supervisors provided therapists with training in our alliance construct designed to maximize early alliance through careful collaborative negotiation of the bond, task, and goals of therapy. Beretta, Roten, and Despland (2002) reported that the degree of Session 1 client collaboration with therapists, achieved by negotiation of therapy, strongly predicted later client working alliance scores.

The effect found for Session 1 alliance scores means it is not possible to adequately separate the supervision effect and the pretreatment session. It is possible that supervision plus the pretreatment alliance training are required to have the demonstrated effect on WAI scores. Alternately, the pretreatment session might have provided a superior starting point for working alliance, and, because high client WAI scores were maintained throughout the duration of therapy, the ongoing and intensive schedule of supervision might have been the most important factor that maintained scores. To clarify this issue, further research including an additional supervision condition without a pretreatment session is recommended. Alternately, it would be of value to discover whether a single pretreatment supervision session alone would be sufficient to produce the effects reported in this study. This is a matter that requires further systematic investigation.

An alternative explanation of the effect of supervision relates to mitigating standardized PST. Henry, Schacht, Strupp, Butler, and Binder (1993) have argued that manualized therapy as used in research studies might have a specifically negative impact on working alliance because of disproportionate attention to technical aspects of therapy and insufficient attention to interpersonal processes. Castonguay, Goldfried, Wiser, Raue, and Hayes (1996) promote a similar argument. In our study, the training period in PST was considerably shorter (2 days) than the length of training reported in the just-mentioned studies, up to 12 months (Castonguay et al., 1996; Henry, et al., 1993). Therapists may have had insufficient practice using PST, creating an exaggerated tendency to focus on the technical delivery of the therapy to the exclusion of interpersonal process. Some support for this proposition may be found in unsupervised client WAI scores that fell within an acceptable range; however, they were on the lower end of scores reported in other studies (Horvath & Greenberg, 1989; Mallinckrodt, 1996). Therefore, it is possible that part of the difference between unsupervised and supervised client WAI scores was that supervision mitigated the negative impact on...
alliance of the application of a standardized and relatively unfamiliar and newly acquired therapeutic technique.

The primary competing explanation of effect in this study is participant allegiance to the supervision condition. There is evidence that positive therapist allegiance is a predictor of successful therapy outcome (Hollon, 1999; Luborsky et al., 1999) and might enhance not only the technical characteristics of therapy but also the working alliance.

Therapists knew that they were randomly assigned to supervised or unsupervised conditions. The result might have been to create differences in motivation between conditions that may have influenced outcome. Future studies may control for allegiance by accounting for the level of allegiance as a mediating variable.

The high client working alliance scores may also have been an indication of commitment to the research condition. We do not believe this is highly likely because therapists were instructed not to tell their clients if they were in supervised or control conditions. However, it is possible that, in discussion with their therapists, enough clients might have become aware of their supervised status to create greater credibility regarding the therapist or the therapy, resulting in expectancy-like effect. Positive expectancy is associated with greater client commitment, motivation, and engagement in therapy (Fenton, Cecero, Nich, Frankforter, & Carroll, 2001; Lambert & Ogles, 2004).

**Supervision and client BDI scores**

We hypothesized that clients receiving supervised therapy for depression would demonstrate a greater reduction of BDI scores assessed at treatment end compared with a control group of clients who receive the same type of therapy but from unsupervised therapists. Hypothesis 2 was supported because clients receiving supervised therapy achieved a significantly greater reduction in BDI scores than those receiving unsupervised therapy.

Mean BDI change in the unsupervised condition was equivalent to results reported for PST by Mynors-Wallis et al. (2000). The mean BDI scores for both supervised groups at treatment endpoint corresponded to remitted depression, whereas unsupervised mean scores approached mild depression. Greater numbers of clients in the supervised condition achieved BDI scores that indicated clinical remission of depression (44 of 65) compared with the unsupervised therapy condition (18 of 38).

The extent of symptom reduction in supervised therapy groups was greater than is usually reported for PST. This might suggest that alliance-oriented supervision can enhance usual treatment effects in PST. If this is the case, then replication is important to determine whether the supervision effect is transferable across other brief therapies for depression.

Using an objective treatment outcome measure at a posttreatment follow-up point by an independent clinician unaware of condition assignment might assist in clarifying the relationship between symptom outcome and supervision (Fenton et al., 2001).

A competing argument to explain the effect of supervision on BDI scores might be that supervision had the unintended effect of assisting therapists to effectively apply PST. To counter this argument, it is necessary to demonstrate that increased working alliance, and not PST, provided the mechanism of change in supervised conditions. Therapist PST adherence should be independent and unrelated to client WAI scores and BDI change. Further, higher working alliance scores should be associated with greater BDI change in the supervised condition. The results of this study provide partial support for this contention. PST adherence was unrelated to BDI change in supervised conditions. WAI scores were significantly related to BDI change in both supervised and unsupervised conditions. The enhanced client WAI scores in the supervised condition achieved a substantial increase in the correlation of the relationship with BDI change compared with the unsupervised condition. Although this evidence is not definitive, the current findings provide support the idea that higher client WAI scores in the supervised conditions were the likely mechanism of enhanced client symptom change.

**Client treatment evaluation**

Our third hypothesis was that clients receiving supervised therapy would evaluate their treatment more positively compared with a control group of clients who receive the same type of therapy but from unsupervised therapists. Hypothesis 3 was supported because supervision had a significant effect on client treatment satisfaction. Clients treated by supervised therapists were more satisfied than those treated by unsupervised therapists. Client satisfaction might be regarded not only as an indication of treatment success but also as an independent measure of treatment effect (Kokotovic & Tracey, 1990; Martin et al., 2000; Piper et al., 1999; Stiles, Agnew-Davies, Hardy, Barkham, & Shapiro, 1998).

In this study, unsupervised therapy treatment evaluation scores were equivalent to those reported by Scott and Freeman (1992), indicating an acceptable level of satisfaction with treatment. The strong supervision effect on treatment satisfaction reported...
in this study is not surprising given the higher working alliance scores reported in the groups treated by supervised therapists. A considerable body of literature indicates a connection between the strength of working alliance in therapy and client treatment satisfaction (Horvath, Gaston, & Luborsky, 1995; Horvath & Symonds, 1991; Kokotovic & Tracey, 1990; Martin et al., 2000; Piper et al., 1999; Stiles et al., 1998). However, it is possible that high treatment satisfaction scores did not relate to high working alliance but were an artifact of the allegiance or expectancy effects discussed previously.

Client treatment retention

We hypothesized that clients receiving supervised therapy will be more likely to complete treatment compared with a control group of clients who receive the same type of therapy but from unsupervised therapists. The hypothesis was supported because supervision had a significant effect on client treatment retention. The total client noncompletion rate for the study cohort was 18.8%, which compares favorably to rates found for comparably sized treatment cohorts in the cognitive therapy literature for depression, ranging from 21% to 45% (Organista, Munoz, & Richardo, 1994; Scott & Freeman, 1992). The unsupervised group had a noncompletion rate of 30.6%. Mynors-Wallis et al. (2000) reported a client noncompletion rate in two PST treatment groups of 38.8% and 21.9%. The noncompletion rate for the supervised therapy (6.2%) was lower than for the unsupervised therapy and lower than the rate reported in previous studies using PST.

Positive client-rated working alliance has been shown to significantly increase treatment retention. Safran, Muran, Samstag, and Winston (2002) demonstrated that an alliance-enhanced form of treatment called brief relational therapy (BRT) achieved significantly greater treatment retention for clients who had difficulty forming alliances compared with other brief approaches (cognitive–behavioral therapy, short term dynamic therapy). The specific focus of supervision on alliance in the current study may have augmented the retention effect by assisting therapists to better accommodate clients who may have had difficulty forming alliances. Regardless of the mechanisms of supervision on retention, these remain important results because the clinical effectiveness of treatment is a function of treatment completion as well as treatment efficacy.

Supervision focus, WAI and BDI scores

We hypothesised that, as a result of their different focus, supervision process procedures would achieve different client working alliance scores in therapy and different client BDI scores at treatment endpoint than the skill-focused procedures. Despite satisfactory differentiation of skill and process supervision approaches, there was no evidence to suggest that alliance process focus had a greater impact on working alliance and symptom reduction. The finding of equivalency of effect between the skill and process foci on both WAI scores and BDI scores means that relational and insight techniques of alliance management are not superior to cognitive and behavioral techniques; therefore, the mechanisms by which supervision enhances alliance and treatment outcome are not clear. The equivalence of effect may indicate that the effectiveness of this supervision rests on a general focus on alliance or influence of common factors.

Limitations of the study

As noted in the Discussion section, the major limitation of this study is that it is not possible to separate the supervision effect from any pretreatment session and therapist allegiance effects. Two further limitations of this study should be noted. An a priori power analysis for each planned statistical analysis to determine appropriate sample size before beginning data collection was undertaken (n = 187). The total number of client participants who completed therapy was 103 divided into three provisional cells (M = 34 each). Although providing a moderate sample size, total power was insufficient to ensure that Type II errors could not occur. Second, the study was not designed to detect subtle differences over time in working alliance, symptom change, and supervision across the duration of therapy. The study was designed to detect total differences between groups over time. Therefore, any tensions that were resolved in therapy as a result of supervision could also have influenced working alliance and not be reflected in the data. Third, the principal researcher in this study undertook a significant amount of the supervision across both conditions. Although there was no detectable difference in WAI and BDI scores compared with other supervisors, it remains possible that researcher-provided supervision might have influenced results in some unknown way, reducing detectable effect between approaches.

Matters for future research

The strength of effect found in this study provides initial evidence that supervision can play a role in developing the working alliance and enhancing treatment outcome. The finding of an effect for the
pre-treatment session on early alliance scores suggests a possible effect for alliance training as an independent intervention or in conjunction with supervision. The equivalency of effect for both supervision approaches means that results of this study do not permit conclusions regarding the degree to which the focus, frequency, and content of supervision are important or whether nonspecific factors are responsible for the supervision effect. Nonspecific factors play a major role in psychotherapy outcome, especially in treatment of depression (King, 1998), and it is possible that they are equally important in the effect of supervision.

Replication is important to confirm both the nature and extent of supervision effects. This could best be done by testing alliance-focused supervision against a form of supervision that is similar in its nonspecific attributes, duration and frequency of contacts, and form of contacts with and without pre-treatment sessions but differs in the content of contacts (alliance focus vs. focus on technique of therapy). Examining these factors will determine the effect if any, of the technical components of supervision when provided independent of a working alliance-focused approach.

Implications for practice

This is the first time that the relationship between supervision and client outcome has been investigated using a randomized controlled treatment trial methodology. Implications must be viewed with some caution. However, the results of this study provide qualified support that supervision that focuses on working alliance can influence client perception of alliance and enhance treatment outcome in the brief psychotherapeutic treatment of depression. At this stage, there is evidence that both the skill and process supervision used in this study were able to effectively achieve these ends. However, it would be premature to conclude that any form of supervision or brief training in alliance management would reliably reproduce the effects reported here.

The main effect for this form of supervision appears to be in its focus on working alliance. To apply these findings to the practice of clinical supervision, the implications are that it may be important to train supervisors in alliance management principles independent of supervisory theory. The standardized supervision approaches used in this study may provide a suitable procedure for training supervisors in the use of alliance management techniques.

References


**Zusammenfassung**

**Klinische Supervision: Ihr Einfluss auf Klienteneinschätzungen der Arbeitsbeziehung und die Symptomreduktion in Kurzzeittherapie von schwerer Depression**

Supervision von Psychotherapeuten und Beratern, besonders in frühen Jahren ihres Praktizierens, wird weithin als wichtig für die professionelle Entwicklung und das Erreichen optimaler Therapieergebnisse angesehen. Obwohl der Prozess der klinischen Supervision ausführlich unter-
La supervisión clínica: su influencia sobre la alianza de trabajo evaluada por el cliente y la reducción sintomática en la terapia breve de la depresión mayor

La supervisión de psicoterapeutas y consejeros, especialmente en los primeros años de práctica, está ampliamente aceptada como importante para el desarrollo profesional y para asegurar resultados óptimos para el cliente. Si bien el proceso de supervisión clínica ha sido extensamente estudiado, menos se conoce acerca del impacto de la supervisión sobre la práctica psicoterapéutica y el resultado de los síntomas del cliente. Este estudio evaluó el impacto de la supervisión clínica sobre la alianza de trabajo del cliente y la reducción del síntoma en la terapia breve de la depresión mayor. Los autores asignaron al azar ciento veintisiete clientes con diagnóstico de depresión mayor a ciento veintisiete terapeutas supervisados o no, que recibirían ocho sesiones de terapia para resolver problemas. Los terapeutas supervisados fueron asignados al azar para una supervisión focalizada en el desarrollo de la habilidad para hacer alianza (alianza skill) o en el proceso de la alianza (alianza process) y recibieron ocho sesiones de supervisión. Antes de comenzar el tratamiento, los terapeutas recibieron una sesión de supervisión para entrenamiento breve en la supervisión para la alianza de trabajo y para características específicas de cada caso. Como variables dependientes se utilizaron medidas estándar de alianza terapéutica y de cambio sintomático. Los resultados mostraron un efecto significativo para ambos tipos de supervisión de la alianza de trabajo desde las primeras sesiones de terapia, reducción sintomática, retención en el tratamiento y evaluación pero sin diferencia entre el efecto de las condiciones de supervisión. No fue posible separar los efectos de la supervisión de los de la sesión previa al tratamiento y es posible que los efectos de la adhesión hayan inflado los resultados. Se debate sobre la relevancia científica y clínica de estos hallazgos.
aliança terapêutica e na redução sintomatológica em terapia breve de depressão major. Os autores distribuíram aleatoriamente 127 clientes, diagnosticados com depressão major, a 127 terapeutas com e sem supervisão, para receberem oito sessões de tratamento de resolução de problemas. Os terapeutas supervisionados foram aleatoriamente distribuídos por duas condições de supervisão, focadas nas competências de aliança terapêutica ou focadas no processo da aliança, recebendo oito sessões de supervisão. Antes do início do tratamento, os terapeutas receberam uma sessão de supervisão como treino breve na abordagem de supervisão da aliança terapêutica e informação sobre as características específicas de cada caso. Foram usadas medidas estandardizadas da aliança terapêutica e da mudança sintomatológica como variáveis dependentes. Os resultados demonstraram um efeito significativo, em ambas as condições de supervisão, na aliança terapêutica, na redução sintomatológica, manutenção dos ganhos terapêuticos e avaliação do tratamento, mas não se verificaram diferenças entre as condições de supervisão. Não foi possível separar os efeitos da supervisão da sessão única de treino no pré-tratamento e é possível que os efeitos do comprometimento tenham inflacionado os resultados. São discutidos os resultados em relação à sua relevância científica e clínica.