

# Exploring the Long-Term Impact of Working Alliance in Couple Therapy: A Waiting-List Controlled 1-Year Follow-Up Study

Benjamin Stahl<sup>1,2\*</sup>; Mia Szymanski<sup>1\*</sup>; Anne Milek<sup>3</sup>; Jana Volkert<sup>4</sup>; Florian-Hendrik Gehrman<sup>5</sup>; Marcello Lussana<sup>5</sup>; Marta Rizzonelli<sup>5</sup>; Pascal Staudt<sup>5</sup>; Jin Hyun Kim<sup>6</sup>

<sup>1</sup> Faculty of Science, Medical School Berlin, Germany

<sup>2</sup> Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany

<sup>3</sup> Department of Psychology and Psychotherapy, Witten-Herdecke University, Germany

<sup>4</sup> Department of Psychiatry, University Hospital Ulm, Germany

<sup>5</sup> Department of Musicology and Media Science, Humboldt University of Berlin, Germany

<sup>6</sup> Department of Music and Technology, University of the Arts Helsinki, Finland

\* Authors contributed equally.

## Author Note

Corresponding author:

Prof. Dr. Benjamin Stahl (ORCID ID: 0000-0003-3957-1495)

Medical School Berlin

Fakultät Naturwissenschaften

Rüdesheimer Straße 50

14197 Berlin, Germany

We have no known conflict of interest to disclose. To access our original data upon reasonable request, please contact the corresponding author. The treatment manual is available via the registration website (www.who.int registry identifier: NCT04830553).

© American Psychological Association, 2024. The present paper reflects only the contents, not the definitive layout, of the authoritative document published in the *Journal of Psychotherapy Integration*. Access the final article via <https://doi.org/10.1037/int0000341>.

### Abstract

Previous research has identified working alliance as a short-term predictor of progress in couple therapy. The present waiting-list controlled 1-year follow-up study explores the long-term influence of working alliance on depression severity after intensive couple therapy. Fifteen couples—overall 30 individuals with comparatively diverse backgrounds—went through an initial waiting period and subsequent treatment phase. Each stage lasted 5 weeks. The intervention involved weekly 2-hour sessions of integrative couple therapy. Testing included the Working Alliance Inventory (WAI) and Beck Depression Inventory (BDI) before ( $T_0$ ) and immediately after the waiting period ( $T_1$ ) and treatment phase ( $T_2$ ) alongside a 1-year follow-up ( $T_3$ ). A repeated-measures analysis of covariance ( $n = 30$ ) revealed a significant interaction between WAI scores and change in BDI performance ( $p < 0.001$ ). This interaction explained almost 36% of the observed repeated-measures variance. Higher WAI scores (i.e., better client-therapist relationship) reflected greater BDI reduction immediately after treatment ( $T_1-T_2$  [95%-CI]:  $-3.1 [\pm 3.0]$ ;  $n = 15$ ) than lower WAI scores ( $T_1-T_2$ :  $1.4 [\pm 2.0]$ ;  $n = 15$ ). Conversely, lower WAI scores were associated with larger benefit at 1-year follow-up ( $T_2-T_3$ :  $-6.4 [\pm 2.6]$ ) than higher WAI scores ( $T_2-T_3$ :  $-0.3 [\pm 2.4]$ ). No significant change in BDI performance occurred during the waiting period. The current results consolidate working alliance as a key factor of immediate and sustained decrease in depression severity after intensive couple therapy. However, trajectories of change over a 1-year follow-up period suggest that poorer working alliance may not diminish this decrease numerically but rather delay its onset in time.

*Keywords:* couple therapy; predictor of efficacy; working alliance; depression; waiting-list controlled study

*Public Significance Statement:* Previous research has identified working alliance as a short-term predictor of progress in couple therapy. The present study consolidates working

alliance as a key factor of immediate and sustained decrease in depression severity after intensive couple therapy. However, trajectories of change over a 1-year follow-up period suggest that poorer working alliance may not diminish this decrease numerically but rather delay its onset in time.

## **Exploring the Long-Term Impact of Working Alliance in Couple Therapy: A Waiting-List Controlled 1-Year Follow-Up Study**

Romantic relationships constitute a primary source of adult intimacy, social support, and personal growth after leaving our birth family (Gurman, 2011). However, romantic relationships may also hold great potential for psychological distress resulting from high level of conflict, separation, and divorce (Whisman et al., 2022). To deal with psychological distress, couple therapy may be a viable means of improving individual psychopathology observed in dysfunctional romantic relationships (Lebow & Snyder, 2022), as implied by a growing body of clinical data (e.g., Bodenmann et al., 2008; Fals-Stewart et al., 2006; Leff et al., 2000). Apart from demonstrating substantial gains in relationship satisfaction, meta-analyses have revealed a significant reduction in psychopathology after couple therapy irrespective of the method applied when comparing cognitive-behavioral and (more broadly classified) emotion-focused approaches (Rathgeber et al., 2019), whereas clients in waiting-list control conditions reported little, if any, positive change (Roddy et al., 2020). Despite some advantage of (more narrowly classified) emotion-focused approaches identified in recent meta-analyses (Spengler et al., 2022), these findings align with the view that change in psychopathology arises from common rather than treatment-specific parameters (Davis et al., 2012) in analogy to psychotherapy (Grawe, 2004).

Examining trajectories of change over time, meta-analyses have concluded that progress in couple therapy may not depend on demographic client characteristics such as age or marital status but on severity of psychological distress prior to treatment (Roddy et al., 2020). Couples with more pronounced psychological distress initially showed larger gains during treatment. To date, only a few studies have assessed the short- and long-term influence of other client characteristics on the success of couple therapy—most notable among them working alliance as a predictor of change. Conceptually, working alliance refers to the quality of interpersonal relationships between individual clients and the therapist with respect to

(i) shared goals, (ii) required tasks to achieve them, and (iii) bonds (Bordin, 1979). As a mechanism of change, working alliance may be both curative in itself and facilitate response to techniques of selected interventions (Vilkin et al., 2022). The present study investigates the short- and long-term impact of working alliance on change in psychopathology after intensive couple therapy while considering severity of psychological distress at baseline.

In psychotherapy, working alliance proved to be a common factor (Grawe, 2004) and predictor of efficacy immediately after treatment and follow-up testing after different periods of time (e.g., Del Re et al., 2021; Flückiger et al., 2018; Martin et al., 2000). Similarly, meta-analyses highlight working alliance as a short-term predictor of progress in couple therapy (Friedlaender et al., 2018). Stronger working alliance between client and therapist was associated with a larger immediate reduction in psychopathology, including depression severity. Additional research corroborated this short-term benefit from working alliance for change in depression severity after couple therapy (Tilden et al., 2021; Wu et al., 2021).

In a broader context of couples and children, only one published study so far has examined the long-term implications of working alliance for the outcome of family-systems psychotherapy at 6-month follow-up (Hogue et al., 2006). This study suggests a favorable influence of stronger working alliance (between parents and the therapist) on change in psychopathology, as apparent in significantly decreased substance abuse (among adolescents belonging to the same family system). Although the study provides valuable insights into the interplay between working alliance and substance abuse across generations, the data are constrained by the comparatively short follow-up period and family-systems perspective without specifying the role of couple sessions. The question remains as to whether—and to what degree—working alliance modulates the efficacy of couple therapy on depression severity over an extended period of time after treatment. The current waiting-list controlled 1-year follow-up study addresses this question.

As outlined above, available data do not warrant definitive hypotheses about the long-term impact of working alliance on change in psychopathology after couple therapy. Drawing on the comprehensive literature of psychotherapy, we nonetheless expect stronger working alliance to be a common factor of immediate and sustained progress in couple therapy (e.g., Del Re et al., 2021; Flückiger et al., 2018; Martin et al., 2000). Given the constant opportunity for social interaction between romantic partners in everyday life, we anticipate that individual short-term gains from couple therapy will manifest in less dysfunctional long-term interpersonal dynamics even for clients with poorer working alliance during treatment, consistent with prominent models in the field (e.g., Gottman et al., 2017; Patterson & Reid, 1970; Willi, 1975) and newer evidence on cognitive-behavioral (Cohen et al., 2014) and emotion-focused approaches (Wittenborn et al., 2019). Accordingly, progress in psychopathology at 1-year follow-up may not be limited to clients with stronger working alliance during couple therapy.

## **Method**

### **Transparency and Openness**

The study protocol was approved by the ethics review board at the Humboldt University of Berlin, Germany (file number: HU-KSBF-EK\_2020\_0017). All participants gave written informed consent prior to study enrolment. The trial was registered prospectively ([www.who.int](http://www.who.int) registry identifier: NCT04830553). To access our original data upon reasonable request, please contact the corresponding author.

### **Study Sample**

Couples were recruited via local radio-station commercials in Berlin, Germany. In- and exclusion criteria were: (1) age of at least 18 years; (2) in continuous relationship for a

minimum of six months; (3) living in shared household or close day-to-day contact to avoid increased risk from physical contact through study participation, conforming to German hygiene standards applicable at that time in response to the COVID-19 pandemic; (4) no acute phase of any mental disorder, as determined by diagnostic interviews and screening using the ICD-10 Symptom Rating (Tritt et al., 2008). Couples had no prior knowledge of the in- and exclusion criteria to reduce the likelihood of concealing an existing mental disorder that may prevent study enrolment.

The study sample consisted of 15 couples, a total of 30 participants. This sample size was calculated in an *a-priori* power analysis ( $\alpha = 0.05$ ;  $1-\beta = 0.90$ ; Cohen's  $f = 0.19$ ; number of groups: 1; number of measurements: 3; repeated-measures correlation: 0.80; resulting  $n = 25$ ; expected dropout rate = 10–15%; final  $n = 30$ ). We assumed a small effect size on our primary outcome, as specified below, in line with previous work (converted from Cohen's  $d = 0.38$ ; Tilden et al., 2021). Importantly, an extended goal of the current study was to deliver more precise estimates of effect size for future research.

Participants' age ranged between 21–65 years ( $M = 36.8$ ;  $SD = 9.2$ ), relationship duration between 1–15 years ( $M = 6.7$ ;  $SD = 3.7$ ), and number of children between 0–3 ( $M = 1.0$ ;  $SD = 0.9$ ; for details, see Table 1). Of the entire sample, 22 participants were unmarried, 6 married, and 2 divorced from their previous partners. One of the couples had an open relationship. With regard to APA-compliant data on ethnicity, 26 participants were white, having spent their childhood in 7 different countries within Europe, 2 were of Middle Eastern descent, and 2 were people of color. As for socioeconomic status, 1 person was temporarily unemployed, 3 individuals were students, 2 retired, and 24 participants earned their regular living from dependent work of 10–40 hours weekly ( $M = 28.0$ ;  $SD = 11.6$ ). Although in- and exclusion criteria were liberal, only mixed-sex couples entered the study sample, with one client identifying as bisexual. Otherwise, the study sample reflected the comparatively

diverse backgrounds of the population in Berlin, Germany. All couples received treatment free of charge.



**Table 1***Sample characteristics*

	<b>Age in years</b>	<b>Relationship duration in years</b>	<b>Number of children</b>	<b>CSI</b>	<b>ISR</b>	<b>WAI</b>
Group I (SD)	40.4 (9.6)	6.7 (3.2)	1.0 (0.9)	123.7 (23.2)	1.5 (0.5)	4.5 (0.3)
Group II (SD)	33.2 (7.1)	6.6 (4.2)	0.9 (0.9)	115.7 (25.6)	1.7 (0.5)	3.6 (0.5)
All (SD)	36.8 (9.2)	6.7 (3.7)	1.0 (0.9)	119.7 (24.4)	1.6 (0.5)	4.0 (0.6)

*Note.* Mean score with standard deviation (SD) for age, relationship duration, number of children as well pre-treatment performance on the Couple Satisfaction Index (CSI; Funk & Rogge, 2007) and ICD-10 Symptom Rating (ISR; Tritt et al., 2008). Participants were assigned to two groups based on whether they were above (Group I;  $n = 15$ ) or below average on the Working Alliance Inventory (WAI; Wilmers et al., 2008) in our data (Group II;  $n = 15$ ).

## Treatment

The study protocol combined elements of psychodynamic, cognitive-behavioral, humanistic and family-systems theory (Stahl, 2023), including emotion-focused methods (Greenberg & Johnson, 1988). As a conceptual framework, we hypothesized that individuals in conflicted romantic relationships are not necessarily aware of their own unmet needs, and consequently, may have difficulties communicating them to their partner. To compensate for their unmet needs, individuals develop—often unconsciously and by relying on strategies acquired during childhood or adolescence—inappropriate behavioral patterns that, in turn, may cause interpersonal problems in romantic relationships (e.g., Simeone-DiFrancesco et al., 2015). Typically, individuals concentrate primarily on their partners' inappropriate behavioral patterns while neglecting their own contribution to everyday interpersonal problems. Our study protocol addressed unmet, frequently *compatible* needs of a couple by moving beyond the level of reported, sometimes *incompatible* behavioral patterns. To do so, we adopted various “externalization techniques” from humanistic and family-systems psychotherapy (e.g., de Shazer, 1982; Minuchin, 1974; Palazzoli et al., 1978).

To date, externalization in humanistic and family-systems psychotherapy has been confined mostly to the visual domain. For example, the “empty-chair method” originating in psychodrama and Gestalt therapy helps clients engage in a dialogue with their own inappropriate behavioral patterns or those of their partner by assigning them a place in the room and by exploring their possible emotional function (Moreno, 1964; Perls, 1969). Likewise, relationship mapping in “sculptures” attempts to make interpersonal problems visible in space, and therefore, easier to handle (Satir et al., 1991). In addition to the visual domain, the current protocol involved auditory externalization. Funded by the German Federal Ministry of Education and Research, a newly created digital system generated instant musical feedback on physical distance and touch. In selected treatment sessions, couples

wore wired bracelets that translated interpersonal proximity and skin contact into musical sounds (Rizzonelli et al., 2023). Previous research supports the adequacy of auditory externalization as a complementary strategy (Fraenkel, 2020) embedded in established forms of integrative couple therapy (Lebow & Snyder, 2022).

The study protocol outlines key elements of *five consecutive meetings* to increase comparability between couples and reproducibility of the results. Session 1: The couple and the therapist get to know each other. The couple describes conflicts in their relationship, commonly by neglecting underlying compatible needs while providing detailed reports of incompatible behavioral patterns (Simeone-DiFrancesco et al., 2015). Session 2: Auditory externalization, as mentioned above, intends to encourage the couple to (better) distinguish between compatible needs and incompatible behavioral patterns (Rizzonelli et al., 2023). This technique also seeks to explore change in incompatible behavioral patterns in a playful way. Session 3: Insights gained through auditory externalization are visualized in space by applying the empty-chair method (Moreno, 1964; Perls, 1969) and relationship mapping in “sculptures” (Satir et al., 1991). Session 4: Auditory externalization serves to further explore change in incompatible behavioral patterns, as discussed in previous meetings. Session 5: The couple and the therapist summarize all meetings, with ample time for transfer of insights into everyday life and feedback.

## **Outcomes**

As a primary outcome, we used the German version of the Beck Depression Inventory (BDI; Hautzinger et al., 2006). This 21-item self-report measure assesses the severity of depressive symptoms in the past 2 weeks consistent with official diagnostic guidelines (World Health Organization, 2019). The total BDI score ranges from 0 to 63, with higher values indicating more pronounced symptom severity. Known for its excellent psychometric properties, such as test-retest reliability (Kühner et al., 2007), the BDI is one of

the most common measures of psychopathology in research on couple therapy (Friedlaender et al., 2018).

As a secondary outcome, we administered the German short version of the Working Alliance Inventory (WAI; Wilmers et al., 2008). This 12-item self-report measure has a confirmed 3-component structure of the subscales Goals (e.g., “We agree on what is important for me [...]”), Tasks (e.g., “I believe the way we are dealing with my problem is correct”), and Bonds (e.g., “I believe my therapist likes me”; Tracey & Kokotovic, 1989). The average WAI score ranges from 1 to 5, with higher values reflecting a more favorable therapeutic relationship. The WAI has excellent psychometric properties (Munder et al., 2010), while adaptations to the context of couple therapy still await data from a German norm sample (Symonds & Horvath, 2004). The psychometric properties of the WAI proved to be appropriate with regard to reliability in the present sample ( $n = 30$ ; Cronbach’s  $\alpha = 0.93$ ).

## **Procedure**

Treatment took place in an outpatient setting at the Humboldt University of Berlin, Germany, between 2021 and 2022. Each couple went through an initial waiting period and subsequent treatment phase. Each stage lasted 5 weeks. A trained clinical psychologist experienced in couple therapy delivered the weekly 2-hour treatment sessions. Each session was videotaped to monitor adherence to the study protocol. Evaluations by the study team confirmed high protocol adherence throughout the trial. A person blinded to the purpose of the study carried out the testing sessions within 1 day before ( $T_0$ : BDI) and immediately after the waiting period ( $T_1$ : BDI), treatment phase ( $T_2$ : BDI) as well as at 1-year follow-up ( $T_3$ : BDI, WAI). None of the couples dropped out of the study prematurely.

## Statistical Analyses

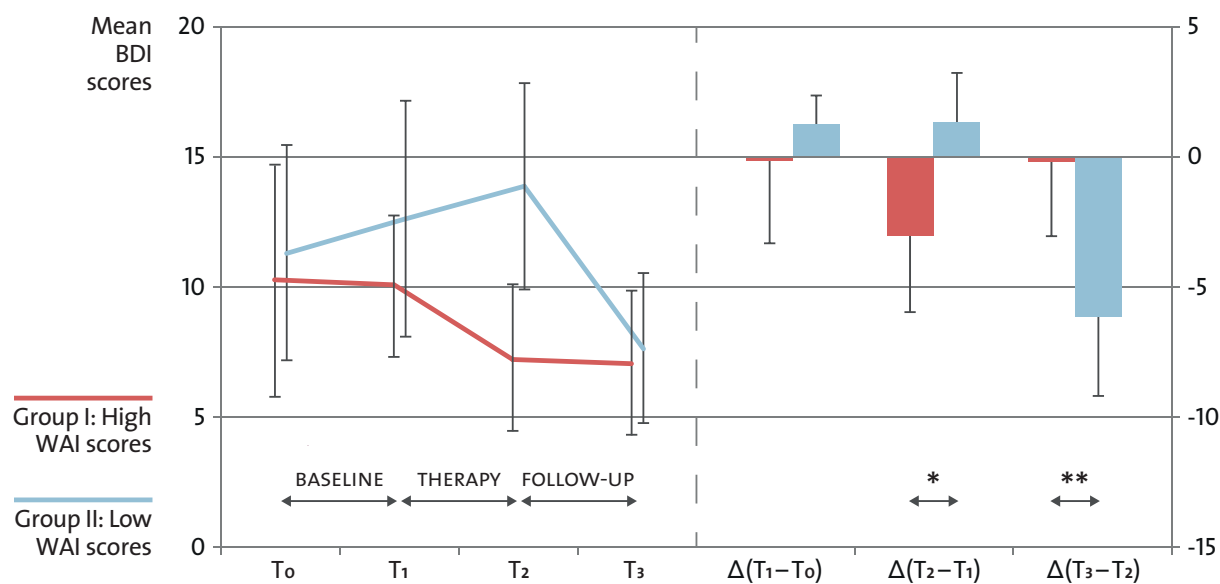
We conducted an *a-priori* repeated-measures analysis of covariance (ANCOVA) for our primary outcome, the BDI, including the factor Time immediately before ( $T_1$ ) and after the treatment phase ( $T_2$ ) as well as at 1-year follow-up ( $T_3$ ), with three covariates: performance before the waiting period ( $T_0$ ) on the BDI (to consider this potential predictor of progress in congruence with previous literature; Roddy et al., 2020), WAI (to examine the quality of the therapeutic relationship), and dyadic data structure (to adjust for systematic interdependence of romantic partners as subunits in our sample). A *post-hoc* correlation analysis investigated the association between pre-treatment BDI ( $T_0$ ) and WAI scores for a more in-depth discussion of the results. For *post-hoc* evaluations, we employed unpaired- and paired-sample *t*-tests. Alpha levels of 0.05 were applied for all statistical evaluations.

## Results

The *a-priori* repeated-measures ANCOVA yielded a significant interaction of Time and WAI scores [ $F(2, 26) = 10.59, p < 0.001, \eta^2 = 0.359; n = 30$ ]. In *post-hoc* evaluations, this interaction emerged from WAI subscales Goals [ $F(2, 26) = 17.19, p < 0.001, \eta^2 = 0.443$ ], Tasks [ $F(2, 26) = 6.17, p = 0.006, \eta^2 = 0.264$ ], and Bonds [ $F(2, 26) = 5.28, p = 0.012, \eta^2 = 0.237$ ]. We did not find a significant *post-hoc* correlation between pre-treatment BDI ( $T_0$ ) and WAI scores [ $r(28) = -0.20; p = 0.286; n = 30$ ].

For more specific *post-hoc* evaluations, we assigned clients to two groups based on whether they were above or below average on the WAI in our data ( $M = 4.0$ ), a threshold similar to the norm-sample mean observed in outpatient settings ( $M = 3.8$ ; Munder et al., 2010). Immediately after treatment, clients with higher WAI scores showed significantly greater BDI reduction ( $T_1$ – $T_2$  [95%-CI]:  $-3.1 [\pm 3.0]; n = 15$ ) than clients with lower

WAI scores ( $T_1-T_2$ : 1.4 [ $\pm 2.0$ ];  $n = 15$ ), as confirmed by an unpaired-sample  $t$ -test [ $t(28) = -2.35, p = 0.013$ ]. At 1-year follow-up, BDI reduction was significantly larger in clients with lower WAI scores ( $T_2-T_3$ : -6.4 [ $\pm 2.6$ ];  $n = 15$ ) than in clients with higher WAI scores ( $T_2-T_3$ : -0.3 [ $\pm 2.4$ ];  $n = 15$ ) according to an unpaired-sample  $t$ -test [ $t(28) = 3.29, p = 0.001$ ; for more details, see Table 2].



**Figure 1. Results.** Changes on the Beck Depression Inventory (BDI; Hautzinger et al., 2006) before ( $T_0$ ) and immediately after the waiting period ( $T_1$ ), treatment phase ( $T_2$ ) as well as at 1-year follow-up ( $T_3$ ). Fifteen couples—overall 30 individuals—went through an initial waiting period [“baseline”;  $\Delta(T_1-T_0)$ ], subsequent treatment phase [“therapy”;  $\Delta(T_2-T_1)$ ] and catamnesis [“follow-up”;  $\Delta(T_3-T_2)$ ]. Participants were assigned to two groups based on whether they were above (Group I, in red [dark grey];  $n = 15$ ) or below average on the Working Alliance Inventory (WAI; Wilmers et al., 2008) in our data (Group II, in blue [light grey];  $n = 15$ ). During the treatment phase, clients with higher WAI scores showed significantly greater BDI reduction than clients with lower WAI scores [ $*p = 0.013$ ]. At 1-year follow-up, BDI reduction was significantly larger in clients with lower WAI scores than in clients with higher WAI scores [ $**p = 0.001$ ; for details, see Results section). Error bars represent 95%-confidence intervals.

**Table 2***Results*

<b>Mean BDI scores</b>	<b>T<sub>0</sub></b>	<b>T<sub>1</sub></b>	<b>T<sub>2</sub></b>	<b>T<sub>3</sub></b>	<b><math>\Delta(T_1-T_0)</math></b>	<b><math>\Delta(T_2-T_1)</math></b>	<b><math>\Delta(T_3-T_2)</math></b>
Group I (CI)	10.5 (4.1)	10.2 (2.8)	7.1 (3.1)	6.8 (3.0)	-0.3 (2.8)	-3.1 (3.0)	-0.3 (2.4)
Group II (CI)	11.5 (4.1)	12.7 (4.3)	14.1 (4.2)	7.6 (3.0)	1.3 (1.2)	1.4 (2.0)	-6.4 (2.6)

*Note.* Mean score with 95%-confidence interval (CI) on the Beck Depression Inventory (BDI; Hautzinger et al., 2006) before (T<sub>0</sub>) and immediately after the waiting period (T<sub>1</sub>), treatment phase (T<sub>2</sub>) as well as at 1-year follow-up (T<sub>3</sub>). Thirty individuals went through an initial waiting period [ $\Delta(T_1-T_0)$ ], subsequent treatment phase [ $\Delta(T_2-T_1)$ ] and catamnesis [ $\Delta(T_3-T_2)$ ]. Participants were assigned to two groups based on whether they were above (Group I;  $n = 15$ ) or below average on the Working Alliance Inventory (WAI; Wilmers et al., 2008) in our data (Group II;  $n = 15$ ).



There was no significant change in BDI performance during the waiting period in a *post-hoc* paired-sample *t*-test [ $T_0-T_1$ :  $t(29) = -0.58$ , not significant (n.s.);  $n = 30$ ]. Examining group-wise change for clients with higher WAI scores in *post-hoc* evaluations, paired-sample *t*-tests indicated a significant BDI reduction immediately after treatment [ $T_1-T_2$ :  $t(14) = 1.94$ ,  $p = 0.036$ ;  $n = 15$ ] but not at 1-year follow-up [ $T_2-T_3$ :  $t(14) = 0.27$ , n.s.;  $n = 15$ ]. For clients with lower WAI scores, paired-sample *t*-tests demonstrated no significant BDI reduction immediately after treatment [ $T_1-T_2$ :  $t(14) = -1.32$ , n.s.;  $n = 15$ ] but at 1-year follow-up [ $T_2-T_3$ :  $t(14) = 4.67$ ,  $p < 0.001$ ;  $n = 15$ ].

## Discussion

The present study explored the long-term influence of working alliance on depression severity after intensive couple therapy. Fifteen couples—a total of 30 individuals—went through an initial waiting period and subsequent treatment phase, with each stage lasting 5 weeks. Despite slightly elevated BDI scores at baseline, none of the participants suffered from acute mental disorders, as ruled out by diagnostic interviews and screening prior to study enrolment. The intervention involved weekly 2-hour sessions of integrative couple therapy, as detailed above. All couples completed the entire treatment program and testing schedule. Controlling for psychopathology at baseline, the ANCOVA revealed a significant interaction between WAI scores and change in BDI performance. Explaining almost 36% of the repeated-measures variance in our data ( $\eta^2 = 0.359$ ), this interaction arose to different degrees from WAI subscales Goals ( $\eta^2 = 0.443$ ), Tasks ( $\eta^2 = 0.264$ ), and Bonds ( $\eta^2 = 0.237$ ). Higher WAI scores reflected greater BDI reduction immediately after treatment than lower WAI scores. Conversely, lower WAI scores were associated with larger benefit at 1-year follow-up than higher WAI scores. As expected, no significant change in BDI performance occurred during the waiting period. Taken together, these results suggest that stronger

working alliance in couple therapy may be an important factor of immediate progress in psychopathology that appears to persist over time. Although poorer working alliance does not necessarily preclude such progress, it may considerably delay its onset in time.

The current findings are insightful in light of a recent meta-analysis that identified pre-treatment performance on multiple outcomes as a major—and sole—predictor of efficacy in couple therapy, with follow-up periods rarely exceeding 6 months (Roddy et al., 2020). At first glance, our data may imply that quality of working alliance accounts for residual variance not attributable to pre-treatment psychopathology, and *vice versa*. However, the overall picture may be more nuanced and merits a closer look. It remains debatable to what degree quality of working alliance and pre-treatment psychopathology are truly separable phenomena. Indeed, poorer working alliance between client and therapist may at least in part indicate a general tendency toward insecure attachment style, and possibly, history of (subclinical and clinical) childhood trauma, which likely undermines a central prerequisite of long-term commitment in romantic relationships, as confirmed by experimental research (Cederbaum et al., 2020; Lassri et al., 2016; Mullen et al., 1996) and meta-analyses (Baer & Martinez, 2006). In other words, some of the explained variance seemingly linked to pre-treatment psychopathology may actually depend on insecure attachment style, manifest in more conflicted romantic relationships and more fragile interpersonal bonds between the individual client and the therapist. Notably, the statistical association between pre-treatment psychopathology and quality of working alliance did not reach significance in our data, yet with a study sample not adequately powered for this purpose beyond the primary aim of our trial ( $r = -0.20$ ;  $p = 0.286$ ). Future research may need to clarify the connection between more pronounced pre-treatment psychopathology and poorer working alliance in couple therapy as a potential expression of insecure attachment style.

Only a few trials on couple therapy have employed active control conditions instead of waiting-list comparators (Roddy et al., 2020). Obviously, this lack of active control conditions prevents conclusions with regard to distinct mechanisms of change in experimental research. The same holds true for the present study. For now, the strength of our data pertains only to statements about the practicability of integrative couple therapy for a group of early responders with above-average WAI scores alongside a group of late responders with below-average WAI scores and a similar total BDI reduction at 1-year follow-up. This finding appears to contradict previous research on decreased substance abuse (in adolescents) at 6-month follow-up only in the case of stronger working alliance (between their parents and a therapist involving the whole family system; Hogue et al., 2006). We propose that our prolonged follow-up period and explicit emphasis on couple therapy may have contributed to the observed BDI reduction at 1-year follow-up in our group of late responders. As a tentative hypothesis, we presume that the BDI reduction in our group of late responders may have its roots in a less dysfunctional, more positive partner interaction during the 1-year follow-up period, consistent with traditional interpersonal models in the literature (Gottman et al., 2017; Patterson & Reid, 1970; Willi, 1975) and newer evidence from cognitive-behavioral (Cohen et al., 2014) and emotion-focused couple therapy (Wittenborn et al., 2019). According to these models, the long-term efficacy of couple therapy would require at least one partner in a romantic relationship to benefit from treatment to initiate change in everyday interpersonal dynamics. If one partner succeeds in doing so, even clients with poorer working alliance during treatment should have the opportunity to make long-term progress—a claim to be further investigated in subsequent research.

## **Limitations and Future Directions**

To overcome caveats of the current study, future research should use full randomization of a still more diverse sample in a parallel-group design to minimize risk of bias, rely on more precise estimates of effect size, and assess working alliance between client and therapist in addition to allegiance between romantic partners in self-report and third-person ratings (Symonds & Horvath, 2004). Finally, music-based externalization embedded in integrative couple therapy proved to be feasible as a complementary strategy in our study protocol, as outlined above. Arguably, this procedure may be well suited to deal with poorer working alliance resulting from insecure attachment style, since it seems to playfully navigate the fine line between creating space for spontaneous emotions, sensations and thoughts while not uncovering memories that are potentially harmful to couples in terms of timing and dosage (Fraenkel, 2020). In our experience with the study protocol, music-based interaction may excel in not raising suspicion of being manipulative, thus making it easier for clients to engage in the treatment sessions. We therefore believe that more research into music-based externalization may help develop a promising adjunct to couple therapy that combines effortlessly with established methods in the field.

## **Conclusion**

As far as we are aware, the current study is the first to explore the long-term influence of working alliance on change in depression severity after couple therapy. Our results consolidate working alliance as a key factor of immediate and sustained decrease in depression severity after intensive couple therapy. However, trajectories of change over a 1-year follow-up period suggest that poorer working alliance may not diminish this decrease numerically but rather delay its onset in time.

### **Acknowledgments**

We would like to thank our couples for engaging in the intensive treatment sessions.

### **Source of Funding**

The present work was funded by the German Federal Ministry of Education and Research (grant number: EID:0037031).

### References

- Baer, J. C., & Martinez, C. D. (2006). Child maltreatment and insecure attachment: A meta-analysis. *Journal of Reproductive and Infant Psychology, 24*(3), 187–197.  
doi: 10.1080/02646830600821231
- Bodenmann, G., Plancherel, B., Beach, S. R., Widmer, K., Gabriel, B., Meuwly, N., Charvoz, L., Hautzinger, M., & Schramm, E. (2008). Effects of coping-oriented couples therapy on depression: A randomized clinical trial. *Journal of Consulting and Clinical Psychology, 76*(6), 944–954. doi: 10.1037/a0013467
- Bordin, E. S. (1979). The generalizability of the psychoanalytic concept of the working alliance. *Psychotherapy: Theory, Research & Practice, 16*(3), 252–260.  
doi: 10.1037/h0085885
- Cederbaum, J. A., Negriff, S., & Palmer Molina, A. (2020). Child maltreatment and romantic relationships in adolescence and young adulthood: The mediating role of self-perception. *Child Abuse & Neglect, 109*(1), Article 104718.  
doi: 10.1016/j.chiabu.2020.104718
- Cohen, S., O’Leary, K. D., Foran, H. M., & Kliem, S. (2014). Mechanisms of change in brief couple therapy for depression. *Behavior Therapy, 45*(3), 402–417.  
doi: 10.1016/j.beth.2014.01.003
- Davis, S. D., Lebow, J. L., & Sprenkle, D. H. (2012). Common factors of change in couple therapy. *Behavior Therapy, 43*(1), 36–48. doi: 10.1016/j.beth.2011.01.009
- de Shazer, S. (1982). *Patterns of Brief Family Therapy: An Ecosystemic Approach*. Guilford Press.

- Del Re, A. C., Flückiger, C., Horvath, A. O., & Wampold, B. E. (2021). Examining therapist effects in the alliance–outcome relationship: A multilevel meta-analysis. *Journal of Consulting and Clinical Psychology, 89*(5), 371–378. doi: 10.1037/ccp0000637
- Fals-Stewart, W., Birchler, G. R., & Kelley, M. L. (2006). Learning sobriety together: A randomized clinical trial examining behavioral couples therapy with alcoholic female patients. *Journal of Consulting and Clinical Psychology, 74*(3), 579–591.  
doi: 10.1037/0022-006x.74.3.579
- Flückiger, C., Del Re, A. C., Wampold, B. E., & Horvath, A. O. (2018). The alliance in adult psychotherapy: A meta-analytic synthesis. *Psychotherapy, 55*(4), 316–340.  
doi: 10.1037/pst0000172
- Fraenkel, P. (2020). Integrating music into couple therapy theory and practice. *Clinical Social Work Journal, 48*(3), 319–333. doi: 10.1007/s10615-020-00755-y
- Friedlander, M. L., Escudero, V., Welmers-van de Poll, M. J., & Heatherington, L. (2018). Meta-analysis of the alliance-outcome relation in couple and family therapy. *Psychotherapy, 55*(4), 356–371. doi: 10.1037/pst0000161
- Funk, J. L., & Rogge, R. D. (2007). Testing the ruler with item response theory: Increasing precision of measurement for relationship satisfaction with the Couples Satisfaction Index. *Journal of Family Psychology, 21*(4), 572–583. doi: 10.1037/0893-3200.214.572
- Gottman, J., & Gottman, J. (2017). The natural principles of love. *Journal of Family Theory & Review, 9*(1), 7–26. doi: 10.1111/jftr.12182
- Grawe, K. (2004). *Psychological Therapy*. Hogrefe & Huber.
- Greenberg, L. S., & Johnson, S. (1988). *Emotionally Focused Therapy for Couples*. Guilford Press.

- Gurman, A. S. (2011). Couple therapy research and the practice of couple therapy: Can we talk? *Family Process*, 50(3), 280–292. doi: 10.1111/j.1545-5300.2011.01360.x
- Hautzinger, M., Keller, F., & Kühner, C. (2006). *BDI-II. Beck Depressions Inventar: Revision*. Harcourt Test Services.
- Hogue, A., Dauber, S., Stambaugh, L. F., Cecero, J. J., & Liddle, H. A. (2006). Early therapeutic alliance and treatment outcome in individual and family therapy for adolescent behavior problems. *Journal of Consulting and Clinical Psychology*, 74(1), 121–129. doi: 10.1037/0022-006x.74.1.121
- Kühner, C., Bürger, C., Keller, F., & Hautzinger, M. (2007). Reliabilität und Validität des revidierten Beck-Depressionsinventars (BDI-II). *Nervenarzt*, 78(6), 651–656. doi: 10.1007/s00115-006-2098-7
- Lassri, D., Luyten, P., Cohen, G., & Shahar, G. (2016). The effect of childhood emotional maltreatment on romantic relationships in young adulthood: A double mediation model involving self-criticism and attachment. *Psychological Trauma: Theory, Research, Practice, and Policy*, 8(4), 504–511. doi: 10.1037/tra0000134
- Lebow, J. L., & Snyder, D. K. (Eds.). (2022). *Clinical Handbook of Couple Therapy*. Guilford Press.
- Leff, J., Vearnals, S., Brewin, C. R., Wolff, G., Alexander, B., Asen, E., Dayson, D., Jones, E., Chisholm, D., & Everitt, B. (2000). The London Depression Intervention Trial—randomised controlled trial of antidepressants v. couple therapy in the treatment and maintenance of people with depression living with a partner: Clinical outcome and costs. *The British Journal of Psychiatry*, 177(2), 95–100. doi: 10.1192/bjp.177.2.95



- Martin, D. J., Garske, J. P., & Davis, M. K. (2000). Relation of the therapeutic alliance with outcome and other variables: A meta-analytic review. *Journal of Consulting and Clinical Psychology, 68*(3), 438–450. doi: 10.1037/0022-006x.68.3.438
- Minuchin, S. (1974). *Families and Family Therapy*. Harvard University Press.
- Moreno, J. L. (1964). *Psychodrama*. Beacon House.
- Mullen, P. E., Martin, J. L., Anderson, J. C., Romans, S. E., & Herbison, G. P. (1996). The long-term impact of the physical, emotional, and sexual abuse of children: A community study. *Child Abuse & Neglect, 20*(1), 7–21. doi: 10.1016/0145-2134(95)00112-3
- Munder, T., Wilmers, F., Leonhart, R., Linster, H. W., & Barth, J. (2010). Working Alliance Inventory—Short Revised (WAI-SR): Psychometric properties in outpatients and inpatients. *Clinical Psychology & Psychotherapy, 17*(3), 231–239. doi: 10.1002/cpp.658
- Palazzoli, M. S., Boscolo, L., Cecchin, G., & Prata, G. (1978). A ritualized prescription in family therapy: Odd days and even days. *Journal of Marital and Family Therapy, 4*(3), 3–9. doi: 10.1111/j.1752-0606.1978.tb00520.x
- Patterson, G. R., & Reid, J. B. (1970). Reciprocity and coercion: Two factors of social systems. In J. Michaels, & C. Neuringer (Eds.), *Behavior Modification for Psychologists* (pp. 711–717). Appleton-CenturyCrofts.
- Perls, F. S. (1969). *Gestalt Therapy Verbatim*. The Gestalt Journal Press.
- Rathgeber, M., Bürkner, P. C., Schiller, E. M., & Holling, H. (2019). The efficacy of emotionally focused couples therapy and behavioral couples therapy: A meta-analysis. *Journal of Marital and Family Therapy, 45*(3), 447–463. doi: 10.1111/jmft.12336

- Rizzonelli, M., Kim, J. H., Staudt, P., & Lussana, M. (2023). Fostering social interaction through sound feedback: Sentire. *Organised Sound*, 28(1), 97–109.  
doi: 10.1017/s1355771822000024
- Roddy, M. K., Walsh, L. M., Rothman, K., Hatch, S. G., & Doss, B. D. (2020). Meta-analysis of couple therapy: Effects across outcomes, designs, timeframes, and other moderators. *Journal of Consulting and Clinical Psychology*, 88(7), 583–596.  
doi: 10.1037/ccp0000514
- Satir, V., Banmen, J., Gerber, J., & Gomori, M. (1991). *The Satir Model: Family Therapy and Beyond*. Science and Behavior Books.
- Simeone-DiFrancesco, C., Roediger, E., & Stevens, B. A. (2015). *Schema Therapy with Couples*. Wiley.
- Spengler, P. M., Lee, N. A., Wiebe, S. A., & Wittenborn, A. K. (2022). A comprehensive meta-analysis on the efficacy of emotionally focused couple therapy. *Couple and Family Psychology: Research and Practice*. doi: 10.1037/cfp0000233
- Stahl, B. (2023). Beyond language deficits: Working alliance and resources as predictors of recovery from aphasia. *Stroke*, 54(8), 2208–2212. doi: 10.1161/strokeaha.123/043498
- Symonds, D., & Horvath, A. O. (2004). Optimizing the alliance in couple therapy. *Family Process*, 43(4), 443–455. doi: 10.1111/j.1545-5300.2004.00033.x
- Tilden, T., Johnson, S. U., Hoffart, A., Zahl-Olsen, R., Wampold, B. E., Ulvenes, P., & Håland, Å. T. (2021). Alliance predicting progress in couple therapy. *Psychotherapy*, 58(3), 391–400. doi: 10.1037/pst0000355
- Tracey, T. J., & Kokotovic, A. M. (1989). Factor structure of the Working Alliance Inventory. *Psychological Assessment*, 1(3), 207–210. doi: 10.1037/1040-3590.1.3.207

Tritt, K., von Heymann, F., Zaudig, M., Zacharias, I., Söllner, W., & Loew, T. (2008).

Entwicklung des Fragebogens “ICD-10 Symptom Rating” (ISR). *Zeitschrift für psychosomatische Medizin und Psychotherapie*, *54*(4), 409–418.

doi: 10.13109/zptm.2008.54.4.409

Vilkin, E., Sullivan, T. J., & Goldfried, M. R. (2022). Conceptualizing the therapeutic

relationship: Mediator or moderator of change? *Journal of Psychotherapy Integration*, *32*(3), 276–290. doi: 10.1037/int0000278

Whisman, M. A., Salinger, J. M., & Sbarra, D. A. (2022). Relationship dissolution and

psychopathology. *Current Opinion in Psychology*, *43*(2), 199–204.

doi: 10.1016/j.copsyc.2021.07.016

Willi, J. (1975). *Couples in Collusion*. Jason Aronson.

Wilmers, F., Munder, T., Leonhart, R., Herzog, T., Plassmann, R., Barth, J., & Linster, H. W.

(2008). Die deutschsprachige Version des Working Alliance Inventory—Short Revised (WAI-SR): Ein schulübergreifendes, ökonomisches und empirisch validiertes Instrument zur Erfassung der therapeutischen Allianz. *Klinische Diagnostik und Evaluation*, *1*(3), 343–358. doi: 10.7892/boris.27962

Wittenborn, A. K., Liu, T., Ridenour, T. A., Lachmar, E. M., Mitchell, E. A., & Seedall,

R. B. (2019). Randomized controlled trial of emotionally focused couple therapy compared to treatment as usual for depression: Outcomes and mechanisms of change. *Journal of Marital and Family Therapy*, *45*(3), 395–409. doi: 10.1111/jmft.12350

World Health Organization (2019). *International Classification of Diseases for Mortality and Morbidity Statistics (11th Revision)*. World Health Organization.

Wu, Q., Parker, M. L., McWey, L. M., & Ledermann, T. (2021). Couple satisfaction, depressive symptoms, and the therapeutic alliance: A systemic perspective. *Family Process, 60*(2), 393–408. doi: 10.1111/famp.12594