



RESEARCH ARTICLE

Suppressor effects in associations between patient attachment to therapist and psychotherapy outcome

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Abstract

Objective: Several studies propose that patient attachment to therapist is associated with therapy outcome. However, the magnitude of the effect is diverse, which might be explicable by suppressor effects and the new concept of pseudo-security.

Method: Associations between patient attachment to therapist (client-attachment-to-therapist-scale [CATS]) and psychotherapy outcome ("global severity index" of the Symptom Check List) were evaluated in $N = 368$ patients. Multilevel models were performed.

Results: When tested in separate models, secure attachment to therapist was associated with a more favourable outcome ($p < 0.05$), whereas avoidant and preoccupied attachment to therapist were correlated with a less favourable outcome (both $p < 0.05$). Avoidant but not preoccupied attachment to therapist suppressed the association between secure attachment to therapist and the outcome. When controlling for the other two CATS scales, avoidant as well as preoccupied attachment to therapist remained associated with a less favourable outcome ($p < 0.05$).

Conclusion: Avoidant attachment to therapist suppresses the association between secure attachment to therapist and psychotherapy outcome. Pseudo-security has to be taken into consideration in self-report data on patient attachment to therapist.

KEYWORDS

attachment, outcome, psychotherapy

1 | INTRODUCTION

Various forms of attachment contribute to psychotherapy processes and outcomes. Reviews reported that patient attachment styles and therapist attachment styles influence the alliance and the outcome (Daniel, 2006; Degnan, Seymour-Hyde, Harris, & Berry, 2016; Diener & Monroe, 2011). The attachment the patient has with the therapist influences psychotherapy processes and outcomes as well (see Mallinckrodt et al., 2017, for an overview). Secure attachment to therapist correlated with a more

favourable outcome, whereas preoccupied and avoidant attachment to therapist were associated with a less favourable outcome.

Mallinckrodt et al. (2017) proposed a distinction between individuated-secure and pseudo-secure attachment to the therapist. Patients with pseudo-secure and individuated-secure attachment to therapist present some similar features, especially in the early sessions. For example, both types of patients appear to bond easily, self-disclose readily, regard their therapist in strongly positive terms, and place high value on the therapeutic relationship (Mallinckrodt et al., 2017). A crucial difference is that

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patients with a pseudo-security pattern but not patients with an individualized-security pattern idealize their therapists.

To identify idealization and pseudo-security, Mallinckrodt et al. (2017) used the preoccupied attachment values of a self-report questionnaire (client-attachment-to-therapist scale [CATS]). However, other studies found defensive idealization more prone in avoidant attached than in preoccupied individuals (see Mikulincer & Shaver, 2017). Therefore, pseudo-security might not only be related to preoccupied attachment but also to avoidant attachment. Further characteristics of the avoidant attachment would support the notion of pseudo-security. The avoidant attached individuals fear rejection (Mallinckrodt, Coble, & Gantt, 1995) and humiliation during session (Mallinckrodt et al., 1995). These fears lead to the negation of the importance of attachment (Buchheim & Mergenthaler, 2000; Main & Goldwyn, 1996), which resembles the deactivation of negative feelings as in the dismissing attachment classification of the Adult Attachment Interview (AAI; Buchheim & Mergenthaler, 2000; Main & Goldwyn, 1996). Both methods (AAI and self-report questionnaire) capture idealization for the avoidant and dismissing attachment. The avoidant individuals (self-report questionnaire) described their parents as less accepting although defensively idealizing them (Brennan, Clark, & Shaver, 1998) and, similarly, dismissing individuals (AAI) adhere to an idealized concept of motherhood (Bengtsson & Psouni, 2008; Dykas, Woodhouse, Jones, & Cassidy, 2014). Moreover, the dismissing individual evaluates positive descriptions although not being able to specify concrete attachment related convincing memories connected to the positive description of the attachment figures. Therefore, they tend to deactivate negative feelings and try to present a positive picture by idealizing their parents or negating their potential importance or influence (Buchheim & Mergenthaler, 2000; Main & Goldwyn, 1996).

In the current study, we investigated associations between patient attachment to therapist and psychotherapy outcome. Moreover, we were interested in the question if pseudo-security is related to preoccupied attachment to therapist and/or avoidant attachment to therapist. Mallinckrodt et al. (2017) reported that preoccupied attachment to therapist suppressed the association between secure attachment to therapist and the outcome in most studies but not in an inpatient sample. Therefore, we explored the associations between secure, preoccupied, and avoidant attachment to therapist in more detail with a larger inpatient sample. Based on the results by Mallinckrodt et al. (2017) and the reflections on avoidant attachment in the passage above, the following research questions and hypotheses were addressed:

- 1) On the basis of the Mallinckrodt et al.'s (2017) findings, we expected that more secure attachment to therapist is associated with a more favourable outcome but that more avoidant and more preoccupied attachment to therapist is associated with a less favourable outcome.
- 2) On the basis of the Mallinckrodt et al.'s (2017) findings, we expected that preoccupied attachment to therapist suppresses the association between secure attachment and psychotherapy outcome.
- 3) On the basis of the argumentation in Section 1, we expected that avoidant attachment to therapist suppresses the association between secure attachment and psychotherapy outcome.
- 4) In an explorative analysis, we evaluated which patient attachment to therapist dimension remains significantly associated with the outcome when statistically controlling for the other two patient attachment to therapist dimensions.

2 | METHOD

2.1 | Participants

Patients were treated in a naturalistic inpatient psychotherapeutic setting at the Carl Gustav Carus University Hospital in Dresden, Germany, from 2005 to 2007.

A total of $N = 368$ patients with available scores for the three CATS scales and available pretreatment scores on the "global severity index" (GSI) of the Symptom Check List (SCL-90-R) were statistically analysed (because these variables functioned as independent variables in the multilevel models, see Statistics).

Most of the patients were female (73.9%). The patients' ages varied between 18 and 79 years ($M = 39.92$; $SD = 13.76$). The average duration of treatment was 68.21 calendar days ($SD = 41.59$). In addition to a daily group therapy session with their primary therapist, patients also saw their primary therapist for individual focal therapy twice a week for 50 min. Among the ICD-10 diagnoses confirmed by SCID (Spitzer, Williams, Gibon, & First, 1990; German version by Wittchen, Zaudig, & Fydrich, 1997) were mostly anxiety disorders (F40-F41; 31.9%), affective disorders (F3; 26.2%), and somatoform disorders (F45; 14.2%).

2.2 | Measures

The CATS (Mallinckrodt et al., 1995) assessed the patients' feelings and attitudes toward their therapist from an attachment perspective. The CATS consists of 36 items forming three scales: the "secure" scale (14 items: "my counselor is dependable"), the "avoidant/fearful" scale (12 items: "I don't like to share my feelings with my counselor"), and the "preoccupied/merger" scale (10 items: "I think I am my counselor's favorite client"). High avoidance reflects the patients' suspicion that the therapist is disapproving, dishonest, and rejecting when displeased as well as the degrees to which the patients are reluctant to disclose themselves, and feel threatened, shameful, and humiliated when speaking in therapy. High preoccupation means that the patients are preoccupied with the therapist, long for more contact, and wish to expand the boundaries of the therapeutic relationship. Patients respond using a 6-point scale ranging from *strongly agree* (1) to *strongly disagree* (6). In the present sample, the internal reliabilities (Cronbach α) for the scales were $\alpha = 0.89$ for the secure scale, $\alpha = 0.85$ for the avoidant scale, and $\alpha = 0.84$ for the preoccupied scale.

The patients' psychological distress was assessed with the German version of the Symptom Check List (SCL-90-R) at the time of admission and at discharge (Franke, 1995). The global severity index (GSI) of SCL-90-R was used as patient reported outcome measure. The GSI measures overall psychological symptom distress; its reliability and validity have been demonstrated in numerous studies. The reliability (Cronbach α) for the GSI was high ($\alpha = 0.98$).

2.3 | Procedure

First, the patients were instructed about the aim of the research project. They were told that the project examines the influence of earlier experiences in relationships onto psychotherapy. The patients were informed that their relationship experiences with the therapist and their psychological symptoms will be assessed. After giving written informed consent for having their anonymous data used in future research projects, the patients were included in the study. The patients filled out routine assessment questionnaires of symptoms at the beginning and the end of the treatment. At the end of the psychotherapeutic intervention, they also filled out the CATS.

2.4 | Statistical analysis

The statistical calculations were done with IBM SPSS Statistics 24. All statistical tests were performed two-tailed, and the significance value was set to $p < 0.05$. Linear multilevel models were performed to address the research questions. The full maximum likelihood estimation was applied to handle missing data of the dependent variable. All multilevel models included the GSI of the SCL-90-R at posttreatment as the dependent variable and the GSI of the SCL-90-R at pretreatment as independent variable. The primary therapists ($n=21$) were not added as a level because the random effects of the null model revealed that the therapists explained an insignificant proportion of the GSI of the SCL-90-R (0.6%; $p=0.708$).

To address research question (1), the CATS secure scale or the CATS preoccupied scale or the CATS avoidant scale was added as independent variable. For the multilevel model to address research question (2), the CATS secure scale as well as the CATS preoccupied scale were added as independent variables. For research question (3), the CATS secure scale and the CATS avoidant scale were added as independent variables to the multilevel model. To address research question (4), all three CATS scales were added as independent variables. All independent variables (CATS scales and GSI at pretreatment) were z-standardized for (1)-(4).

3 | RESULTS

Table 1 presents the correlations between the measures.

3.1 | Results for research question 1

Based on the Mallinckrodt et al.'s (2017) findings, we expected that more secure attachment to therapist is associated with a more

favorable outcome, but that more avoidant and more preoccupied attachment to therapist is associated with a less favorable outcome.

Table 2 presents the results of the three multilevel models. It can be seen that secure patient attachment to therapist was correlated with less psychological symptoms at discharge ($t(362) = -5.76$, $p < 0.001$), whereas avoidant as well as preoccupied attachment to therapist were associated with more psychological symptoms at discharge (preoccupied: $t(362) = 4.14$, $p < 0.001$; avoidant: $t(362) = 8.08$, $p < 0.001$).

3.2 | Results for research question 2

Based on the Mallinckrodt et al.'s (2017) findings, we expected that preoccupied attachment to therapist suppresses the association between secure attachment and psychotherapy outcome.

The results of this multilevel model are shown in Table 3. Increases on the CATS secure scale were associated with less psychological symptoms at discharge even when statistically controlling for

TABLE 2 Results of the separate multilevel models on associations between patient attachment to therapist and psychotherapy outcome (dependent variable: GSI_post-treatment)

Parameter	Estimate	SE	df	t	p
GSI_pretreatment	0.45	0.03	362	18.05	<0.001
CATS_secure	-0.14	0.03	362	-5.76	<0.001
GSI_pretreatment	0.44	0.03	362	16.90	<0.001
CATS_preoccupied	0.11	0.03	362	4.14	<0.001
GSI_pretreatment	0.42	0.02	362	17.21	<0.001
CATS_avoidant	0.20	0.02	362	8.08	<0.001

Note. CATS: client-attachment-to-therapist-scale; GSI: global severity index.

TABLE 3 Results of the multilevel model on associations between both secure as well as preoccupied attachment to therapist and psychotherapy outcome (dependent variable: GSI_post-treatment)

Parameter	Estimate	SE	df	t	p
GSI_pretreatment	0.43	0.03	362	17.19	<0.001
CATS_secure	-0.14	0.02	362	-5.83	<0.001
CATS_preoccupied	0.11	0.03	362	4.23	<0.001

Note. CATS: client-attachment-to-therapist-scale; GSI: global severity index.

TABLE 1 Correlations between the measures

	GSI at pretreatment	GSI at posttreatment	CATS secure at posttreatment	CATS avoidant at posttreatment	CATS preoccupied at posttreatment
GSI at pretreatment	—	0.68**	-0.08	0.21**	0.23**
GSI at posttreatment	—	—	-0.27**	0.42**	0.30**
CATS secure at posttreatment	—	—	—	-0.71**	-0.04
CATS avoidant at posttreatment	—	—	—	—	0.23**
CATS preoccupied at post-treatment	—	—	—	—	—

Note. CATS: client-attachment-to-therapist-scale; GSI: global severity index.

** $p \leq 0.01$.

the CATS preoccupied scale ($t(362) = -5.83, p < 0.001$). Moreover, higher values on the CATS preoccupied scale were still associated with more psychological symptoms at discharge when statistically controlling for the CATS secure scale ($t(362) = 4.23, p < 0.001$).

3.3 | Results for research question 3

Based on the argumentation in the introduction, we expected that avoidant attachment to therapist suppresses the association between secure attachment and psychotherapy outcome.

The results of this multilevel model are given in Table 4. Secure patient attachment to therapist was not associated with psychological symptoms at discharge anymore when statistically controlling for avoidant patient attachment to therapist ($t(362) = -0.41; p = 0.680$). When statistically controlling for secure patient attachment to therapist, avoidant patient attachment to therapist was still correlated with more psychological symptoms at discharge ($t(362) = 5.43; p < 0.001$).

3.4 | Results for research question 4

In an explorative analysis, we evaluated which patient attachment to therapist dimension remains significantly associated with the outcome when statistically controlling for the other two patient attachment to therapist dimensions.

When controlling for the other CATS scales, preoccupied ($t(362) = 3.05; p = 0.002$) and avoidant ($t(362) = 4.54; p < 0.001$) attachment to therapist remained significantly correlated with more psychological symptoms at discharge, whereas the association between secure attachment to therapist and psychological symptoms at discharge was suppressed ($t(362) = -0.93; p = 0.352$; see Table 5).

TABLE 4 Results of the multilevel model on associations between both secure as well as avoidant attachment to therapist and psychotherapy outcome (dependent variable: GSI_post-treatment)

Parameter	Estimate	SE	df	t	p
GSI_pretreatment	0.43	0.02	362	17.18	<0.001
CATS_secure	-0.01	0.03	362	-0.41	0.680
CATS_avoidant	0.19	0.03	362	5.43	<0.001

Note. CATS: client-attachment-to-therapist-scale; GSI: global severity index.

TABLE 5 Results of the combined multilevel model on associations between secure, preoccupied, and avoidant attachment to therapist and psychotherapy outcome (dependent variable: GSI_post-treatment)

Parameter	Estimate	SE	df	t	p
GSI_pretreatment	0.41	0.02	362	16.69	<0.001
CATS_secure	-0.03	0.03	362	-0.93	0.352
CATS_preoccupied	0.08	0.03	362	3.05	0.002
CATS_avoidant	0.16	0.04	362	4.54	<0.001

Note. CATS: client-attachment-to-therapist-scale; GSI: global severity index.

4 | DISCUSSION

The aim of this study was to evaluate associations between patient attachment to therapist and psychotherapy outcome with a focus on pseudo-security. When each CATS scale was evaluated separately, secure attachment to therapist was associated with a more favourable outcome, whereas preoccupied and avoidant patient attachment to the therapist were correlated with a less favourable outcome. This is in line with the literature (see Mallinckrodt et al., 2017).

Concerning pseudo-security, the results showed that secure patient attachment to therapist was associated with a more favourable outcome before and after controlling for preoccupied patient attachment to the therapist. Therefore, there was no redundancy or suppressor effect for CATS preoccupied onto CATS secure attachment. This means that pseudo-security based on the preoccupied attachment scale could not be replicated (Mallinckrodt et al., 2017). In the Mallinckrodt et al. (2017) study, suppressor effects were shown for all analysed datasets except for the Petrowski, Pokorny, Nowacki, and Buchheim (2013) dataset, which is a subsample of the sample of the current study. Mallinckrodt explained this discrepancy by differences in the setting (inpatient vs. outpatient) and by different outcome measures.

In contrast to Mallinckrodt et al. (2017), the results of the present study revealed that there was a redundancy effect between CATS secure and the CATS avoidant attachment. Secure attachment to therapist was not associated with the outcome anymore when controlling for avoidant attachment to therapist. In sum, pseudo-security based on preoccupied patient attachment to the therapist could not be replicated; however, a pseudo-security based on avoidant patient attachment to the therapist could be identified. Avoidant attachment to therapist was still associated with a less favourable outcome when controlling for the other two CATS scales as was preoccupied attachment to therapist.

4.1 | Limitations and suggestions for future research

Even though this study is based on a relatively large sample of patients and psychometrically sound measures were used, there are several limitations that have to be considered. For example, patient attachment to therapist was measured at the end of treatment simultaneously to the rating of the symptoms. Measuring attachment to therapist several times during the process of therapy might be more promising and repeated CATS process measures might show different associations with the outcome than one CATS measure at discharge. Another limitation belongs to the generalization of the results. The relatively large standard deviation of the treatment duration might be a confounding variable and the results might be different in studies on outpatient settings or studies using other outcome measures (see Mallinckrodt et al., 2017). Moreover, patient attachment to therapist was assessed only by a self-report in the present study. The effect of patient attachment to therapist should be investigated by different methods in future studies. For example, the patients' representation of the therapists using the Patient-Therapist AAI (PT AAI) by Diamond, Clarkin, Stovall, and Levy (2001) might prove to be fruitful. The PT-AAI is a semistructured interview developed as an adaptation of

the AAI aimed at classifying the mental state concerning patients' attachment to their therapist and vice versa. In addition, the therapy dropout rate as well as disorder specific effects need to be examined more closely in reference to the patient attachment to therapist. Also, there are still numerous unanswered questions such as, for example, how counter-complementary attachment behaviour can and should be used in therapeutic settings (e.g., Mallinckrodt, 2000). Moreover, research on interactions between attachment styles of the patients, attachment styles of the therapists, patient attachment to therapist, therapeutic processes, and outcomes is required. Petrowski, Nowacki, Pokorny, and Buchheim (2011) found interaction effects between patient and therapist attachment styles with regard to the alliance. A recent review reported preliminary evidence that therapists' attachment styles (as well as other therapist variables such as interpersonal history with caregivers or self-concept) influence the outcome through interactions with patient variables and the therapeutic alliance (Lingiardi, Muzi, Tanzilli, & Carone, 2018). As most of the past studies on the therapeutic alliance focused on the degree of agreement between patient and therapist, further research could examine how the patient attachment to therapist dimensions are related to negotiations of disagreements (Doran, Safran, & Muran, 2016) or to alliance ruptures (e.g., Miller-Bottome, Talia, Safran, & Muran, 2018).

4.2 | Implications

Clinical implications of our results are that therapists should carefully examine the individual patient's attachment to them. They should be aware that patients can have both positive (secure) and negative (avoidant, preoccupied) attachment to therapist at the same time and that an avoidant attachment to therapist can undermine the positive association between secure attachment to therapist and psychotherapy outcome.

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How to cite this article: Petrowski K, Berth H, Schurig S, Probst T. Suppressor effects in associations between patient attachment to therapist and psychotherapy outcome. *Clin Psychol Psychother*. 2019;26:105–109. <https://doi.org/10.1002/cpp.2334>