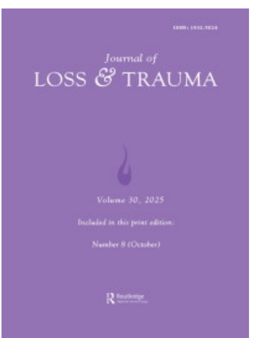

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Childhood Trauma May Explain Gains in Relationship Satisfaction After Integrative Couple Therapy

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ABSTRACT

Childhood trauma may affect adult romantic relationships by evoking formerly adaptive, now possibly harmful compensatory strategies in interpersonal conflicts. The present waiting-list controlled predictor-of-efficacy study explores the influence of childhood trauma on change in relationship satisfaction after intensive couple therapy (www.who.int registry identifier: NCT04830553). Fifteen couples—overall 30 individuals with comparatively diverse backgrounds—went through an initial waiting period and subsequent outpatient treatment. Each stage lasted 5 weeks. The intervention involved weekly 2-hour sessions of integrative couple therapy. Testing included the Childhood Trauma Questionnaire (CTQ) as a predictor and the Couples Satisfaction Index (CSI) as a primary outcome before (T_0) and immediately after the waiting period (T_1) and treatment phase (T_2). A repeated-measures analysis of covariance ($n = 30$) accounting for CSI baseline (T_0) revealed a significant interaction ($p = .012$) between CTQ scores and change in CSI performance (T_2–T_1). The effect size of this interaction was large (η^2 = 0.387). Higher CTQ scores (i.e., more early-life exposure to abuse or neglect) reflected greater CSI gains (i.e., more treatment benefit). As expected, no significant change in CSI performance occurred during the waiting period (T_1–T_0). The current work identifies severity of childhood trauma as a potential key predictor of progress in couple therapy. Clients, practitioners, and researchers alike are encouraged not to prematurely judge history of childhood trauma as an unfavorable sign for the outcome of couple therapy, but to cautiously assume a strong capacity for growth in romantic relationships for adults with early-life exposure to abuse or neglect.

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Introduction

Romantic relationships constitute a primary source of adult intimacy, social support, and personal growth after leaving our birth family (Gurman, 2011). However, low relationship satisfaction may also hold great potential for psychological distress (Whisman et al., 2022), with clinical syndromes ranging from depression (e.g., Bodenmann et al., 2008; Leff et al., 2000) to addiction (e.g., Fals-Stewart et al., 2006). To prevent psychological distress, couple therapy may be a viable means to improve relationship satisfaction, as implied by a growing body of data (Lebow & Snyder, 2022). Meta-analyses indeed revealed significant gains in relationship satisfaction 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 results align with the view that change in relationship satisfaction arises from common rather than treatment-specific parameters (Davis et al., 2012) in analogy to psychotherapy (Grawe, 2004).

Examining trajectories of change in relationship satisfaction, meta-analyses concluded that progress in couple therapy may not depend on demographic client characteristics such as age or marital status but on relationship satisfaction before treatment (Roddy et al., 2020). In particular, couples with lower relationship satisfaction initially showed larger gains during treatment. Only a few studies have assessed the influence of further client characteristics on the outcome of couple therapy when accounting for relationship satisfaction at baseline. The present work considers history of childhood trauma as a potential predictor of change in couple therapy. Conceptually, the categorical diagnostic term "trauma" refers to experience of actual or imminent death, serious injury or threat to physical integrity of self or others (World Health Organization, 2019). As a dimensional construct, "severity of childhood trauma" reflects the degree of retrospective exposure to (emotional-physical-sexual) abuse or (emotional-physical) neglect in early life—a definition employed subsequently and relevant in non-interventional and interventional research summarized below (Bernstein et al., 1994).

A series of non-interventional research has delivered evidence of *indirect* associations between childhood trauma and adult romantic relationships. Most notably, cross-sectional data suggest that the link between childhood trauma and adult relationship satisfaction may be mediated by self-perception skills (Cederbaum et al., 2020), mindfulness (Godbout et al., 2020), attachment avoidance (Lassri et al., 2016), and intimacy (e.g., mutual self-disclosure and perceived partner responsiveness; Vaillancourt-Morel

et al., 2019). Likewise, meta-analyses of longitudinal data have documented the detrimental effect of childhood trauma on the ability of secure attachment, arguably the strongest prerequisite for long-term commitment (Baer & Martinez, 2006). Moreover, longitudinal research points to a buffering influence of relationship satisfaction on the link between childhood trauma and adult sexual well-being (Vaillancourt-Morel et al., 2021). Concerning *direct* associations, cross-sectional data have demonstrated that childhood trauma increases the rate of separation and divorce (Mullen et al., 1996) as well as the level of sexual problems reported by women with early-life exposure to multiple forms of abuse (Lemieux & Byers, 2008; Schloredt & Heiman, 2003; Seehuus et al., 2015).

As for interventional research, a randomized controlled trial has confirmed the overall efficacy of emotion-focused couple therapy in women with history of sexual abuse (Dalton et al., 2013). Subsequent interventional research has yielded mixed results on the implications of childhood trauma for the working alliance between client and therapist, known as a central predictor of immediate and sustained benefit from treatment (Stahl et al., 2024). While some studies indicate that partners with more pronounced history of childhood trauma build a weaker working alliance in couple therapy (Anderson et al., 2020; Fayed et al., 2021), other data do not suggest such a difference (VanBergen et al., 2020). So far, only two major studies have investigated the impact of childhood trauma on change in relationship satisfaction during couple therapy. In a randomized controlled trial, greater severity of childhood trauma led to poorer outcomes on measures of sexual function and pleasure in women with touch-provoked chronic vulvar pain, a syndrome called vestibulodynia (Charbonneau-Lefebvre et al., 2022). In a second clinical trial, higher degree of childhood trauma did not moderate treatment-induced progress in a sample of psychiatric inpatients, except for smaller gains observed on measures of family-systems quality (Whittaker et al., 2023). Although both studies provide valuable insights into the interplay between childhood trauma and adult psychopathology, generalizability may be limited to sexual function and pleasure as essential but not sole elements of relationship satisfaction, as well as to a psychiatric setting combining couple sessions with family-systems psychotherapy.

The question remains as to whether—and to what extent, positive or negative—history of childhood trauma interferes with change in relationship satisfaction after couple therapy beyond measures of sexual function and pleasure in a non-psychiatric outpatient setting. The current waiting-list controlled predictor-of-efficacy study addresses this question. As outlined above, available evidence does not warrant clear directional hypotheses about change in relationship satisfaction depending on severity of childhood trauma. Based on the integrative couple therapy theory guiding our research (Basham & Miehls, 2004; Hecker, 2007; Johnson &

Courtois, 2009), we argue that children experiencing trauma may face the necessity to fulfill their unmet needs by developing compensatory strategies (e.g., creating a sense of safety through social withdrawal in the event of danger). These compensatory strategies—formerly adaptive to ensure survival under adverse circumstances—may persist in adolescence and adulthood as dysfunctional behavior (e.g., social withdrawal also in the absence of danger). In romantic relationships, victims of childhood trauma may benefit particularly from integrative couple therapy that concentrates on the interplay between unmet needs and potentially harmful compensatory strategies (e.g., resorting to social withdrawal in interpersonal conflicts). After raising awareness about this interplay, integrative couple therapy encourages clients with early-life exposure to abuse or neglect to playfully explore more appropriate behavior to articulate unmet needs in romantic relationships (e.g., overcoming fear of expressing desires openly in interpersonal conflicts). Given our integrative treatment approach detailed below, we anticipate that severity of childhood trauma modulates change in relationship satisfaction after five weeks of intensive couple therapy.

Materials and methods

Transparency and openness

The study protocol was approved by the ethics review board at the Humboldt University of Berlin, Germany (date: October 2020; file number: HU-KSBF-EK_2020_0017). All participants gave written informed consent prior to study enrollment. The trial was registered prospectively (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 interviews and screening using the ICD-10 Symptom Rating (ISR; 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 enrollment.

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 $f = 0.25$; number of groups: 1; number of testings: 2; repeated-measures correlation: 0.70; resulting $n = 28$; projected dropout rate: 5%; final $n = 30$). Given the lack of estimates for our primary outcome in German, as specified below, we assumed a medium effect size and large repeated-measures correlation. Importantly, an extended goal of the current study was to deliver more precise estimates of effect size and repeated-measures correlation for future research.

Participants' age ranged between 21 and 65 years ($M = 36.8$; $SD = 9.2$), relationship duration between 1 and 15 years ($M = 6.7$; $SD = 3.7$), and number of children between 0 and 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, non-monogamous relationship. Prior to study enrollment, 3 participants had completed any form of one-to-one psychotherapy centered on childhood trauma; 2 individuals had already undergone couple therapy. None of the participants matched the criteria of mental-health problems arising from more recent traumatic events. 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. Each couple received treatment free of charge.

Treatment

The study protocol combined elements of psychodynamic, cognitive-behavioral, humanistic, and family-systems theory (Stahl, 2023), among them

Table 1. Sample characteristics.

	Age in years	Relationship duration in years	Number of children	ISR	CTQ
Group I	36.2	5.9	0.9	1.8	50.8
(SD; range)	(8.0; 25–57)	(4.0; 1–15)	(1.0; 0–3)	(0.5; 1.0–2.9)	(13.7; 35–77)
Group II	37.3	7.2	1.1	1.4	32.7
(SD; range)	(10.5; 21–65)	(3.7; 1–15)	(0.9; 0–2)	(0.3; 1.0–2.5)	(3.6; 25–39)
All	36.8	6.7	1.0	1.6	40.6
(SD; range)	(9.2; 21–65)	(3.7; 1–15)	(0.9; 0–3)	(0.5; 1.0–2.9)	(12.7; 25–77)

Mean score with standard deviation (SD) and range for age, relationship duration, number of children as well as performance on the ICD-10 Symptom Rating (ISR; Tritt et al., 2008) and Childhood Trauma Questionnaire (CTQ; Klinitzke et al., 2012). Participants are assigned to two groups based on whether they were in the moderate-to-extreme (Group I; $n = 13$) or none-to-moderate range on at least one CTQ subscale (Group II; $n = 17$).

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-DiFranceso 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 (e.g., partner one: hoping to alleviate the fear of losing partner two; partner two: hoping to alleviate fear of being patronized by partner one; each of these emotional demands are *not* mutually exclusive if expressed in a sincere, non-manipulative way) by moving beyond the level of reported, sometimes *incompatible* behavioral patterns (e.g., partner one: overcontrolling partner two; partner two: overemphasizing independence from partner one; each of these actions allows short-term relief of intrapersonal fear at the expense of long-term interpersonal problems). 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 proximity and skin contact. This procedure aimed to uncover unmet needs directly or indirectly associated with both physical and emotional aspects of intimacy and interpersonal boundaries. In selected treatment sessions, couples wore wired bracelets that translated proximity and skin contact into musical sounds (i.e., client-responsive layers of fifth intervals and ninth chords delivered by synthesized acoustic instruments: sustained standing bell for physical closeness without touch; Fender Rhodes piano for brief touch; cello for prolonged touch; 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-DiFranceso 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 predictor of change during treatment, we administered the German short version of the Childhood Trauma Questionnaire (CTQ; Klinitzke et al., 2012). This 25-item self-report measure with good psychometric properties retrospectively determines the degree of abuse or neglect by reflecting the cumulative extent of childhood trauma rather than the severity of single critical events. Abuse refers to non-sexual or sexual violence, verbal assaults or other humiliating behavior inflicted on a child by an adult. Neglect describes a caregiver's failure to meet a child's basic emotional-physical needs. The total CTQ score ranges from 0 to 124, with higher values indicating more pronounced childhood trauma. The reliability of the CTQ was adequate in the present sample ($n = 30$; Cronbach's alpha = 0.91). The instrument includes the following subscales: emotional abuse; physical abuse; sexual abuse; emotional neglect; and physical neglect.

As a primary outcome, we used the Couple Satisfaction Index (CSI; Funk & Rogge, 2007). The original English version of this 32-item self-report measure shows excellent psychometric properties, such as test-retest reliability, and assesses various aspects of relationship satisfaction (e.g., "I feel that I can confide in my partner about virtually anything," "How well does your partner respond to your needs?" or "How often do you and your partner have fun together?"). Given the lack of an established outcome of relationship satisfaction in German, we chose to adapt the CSI because of its wide distribution and norm data in many languages. The CSI underwent state-of-the-art translation into German and back-translation into English supervised by four different research teams to ensure

content validity. With regard to reliability, the psychometric properties of the CSI proved to be appropriate in the present sample ($n = 30$; Cronbach's alpha = 0.92). The total score of the instrument ranges from 0 to 161, with higher values indicating better relationship satisfaction. Since couple therapy does not rule out the possibility of separation, it is important to note that the CSI does not envision such a scenario. Hence, separation may justify *post-hoc* evaluations without the couple(s) concerned, in addition to an *a-priori* full-sample analysis to reduce risk of bias.

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. To this end, several trainees in psychotherapy consulted in weekly meetings to review the recorded material, with evaluations confirming 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: CSI, CTQ) and immediately after the waiting period (T_1: CSI) and treatment phase (T_2: CSI). Notably, severity of childhood trauma was assessed prior to the waiting period to minimize confound with any later stage of the study protocol. 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 CSI, including the factor Time immediately before (T_1) and after the treatment phase (T_2), with three covariates: performance before the waiting period (T_0) on the CSI (to consider this potential predictor of progress in congruence with previous work; Roddy et al., 2020), CTQ (to quantify the severity of early-life abuse or neglect), and dyadic data structure (to adjust for systematic interdependence of romantic partners as subunits in our sample). For *post-hoc* correlation analyses and subgroup evaluations, we employed non-parametric tests to account for the sample size. Alpha levels of 0.05 were applied for all statistical evaluations.

Results

The *a-priori* repeated-measures ANCOVA ($n = 30$) yielded a significant interaction of Time and continuous CTQ scores [$F(1, 13) = 8.56$, $p = .012$,

η^2 = 0.387]. This interaction arose mainly from CTQ subscales emotional abuse [F(1, 13) = 5.84, p = .031, η^2 = 0.299], physical abuse [F(1, 13) = 6.79, p = .022, η^2 = 0.338] and emotional neglect [F(1, 13) = 5.44, p = .036, η^2 = 0.295]. In *post-hoc* evaluations, Spearman's ρ correlation coefficients indicated a significant negative association between CTQ scores (T_0) and CSI performance immediately before treatment [T_1: ρ = −0.501, p = .005] but not prior to the waiting period [T_0: ρ = −0.203, p = .281, not significant (n.s.)]. Moreover, Spearman's ρ points to a positive association between CTQ scores (T_0) and CSI gains during treatment [$\Delta(T_2–T_1)$: ρ = 0.480; p = .007; see Table 2].

Descriptive *post-hoc* evaluations specified the individual type of trauma in our study sample (n = 30). As per CTQ scores on each subscale (see Table 3), 9 individuals had a history of emotional abuse of in the moderate-to-extreme range; 3 individuals had a history of physical abuse in the severe-to-extreme range; 1 individual had a history of sexual abuse in the moderate-to-severe range; 6 individuals had a history of emotional neglect in the moderate-to-extreme range; and 5 individuals had a history of physical neglect in the moderate-to-extreme range of the German norm sample (Klinitzke et al., 2012). In our study sample, 13 individuals were in the moderate-to-extreme range on at least one CTQ subscale. Of these 13 individuals, only 2 clients in one romantic relationship both had elevated CTQ scores, yet to strongly varying degrees across subscales; all remaining 11 clients were in a romantic relationship with a partner whose CTQ scores

Table 2. Association between CTQ and CSI scores.

	CTQ and CSI at T_0	CTQ and CSI at T_1	CTQ and CSI at T_2	CTQ and CSI for $\Delta(T_1–T_0)$	CTQ and CSI for $\Delta(T_2–T_1)$
Spearman's ρ	−0.203	−0.501	−0.292	−0.146	0.480
p value	.281	.005	.117	.440	.007

Spearman's ρ correlation coefficients and p values for the association between scores on the Childhood Trauma Questionnaire (CTQ; Klinitzke et al., 2012) and Couple Satisfaction Index (CSI; Funk & Rogge, 2007) before (T_0) and immediately after the waiting period (T_1) and treatment phase (T_2). In addition, the association includes CSI scores for change during the initial waiting period [$\Delta(T_1–T_0)$] and subsequent treatment phase [$\Delta(T_2–T_1)$].

Table 3. Type and severity of childhood trauma in the present study sample.

CTQ severity range	Emotional abuse	Physical abuse	Sexual abuse	Emotional neglect	Physical neglect	Above-threshold on at least one CTQ subscale
Severe to extreme	6	3	0	5	2	7
Moderate to severe	3	0	1	1	3	6
Low to moderate	8	0	5	12	8	13
None to low	13	27	24	12	17	4

Number of participants within each range and subscale of the Childhood Trauma Questionnaire (CTQ), with severity levels based on the German norm sample (Klinitzke et al., 2012).

ranked in the none-to-moderate range across subscales. Hence, childhood trauma occurred almost consistently in only one person per couple.

Further *post-hoc* evaluations addressed systematic patterns underlying the interaction of Time and CTQ scores. For this purpose, we assigned individuals to two groups based on whether they were in the moderate-to-extreme range (Group I; $n = 13$) or in the none-to-moderate range (Group II; $n = 17$; see Table 3) on at least one CTQ subscale of the German norm sample (Klinitzke et al., 2012). As demonstrated by the Brunner-Munzel test, higher CTQ scores reflected significantly greater CSI gains during treatment (T_2–T_1 [95%-CI]: 7.1 [±6.3]; $n = 13$) than lower CTQ scores (T_2–T_1: −3.9 [±5.1]; $n = 17$; $z = -3.53$, $p < .001$; see Table 4). Examining group-wise change, Wilcoxon signed-rank tests showed significant gains in CSI performance during the treatment phase for individuals with higher CTQ scores (T_2–T_1: $n = 13$; $z = 2.00$, $p = .046$) but not for individuals with lower CTQ scores (T_2–T_1: $n = 17$; $z = -1.66$, n.s.). There was no significant change in CSI performance during the waiting period regardless of whether CTQ scores were higher (T_1–T_0: $n = 13$; $z = -0.55$, n.s.) or lower (T_1–T_0: $n = 17$; $z = 0.26$, n.s.).

One of the 15 couples described the therapy sessions as an "opportunity" to end their relationship amicably, which they ultimately succeeded in doing. Therefore, additional *post-hoc* evaluations focused on the CSI data without these two individuals to ensure meaningful interpretation of the results ($n = 28$). Excluding the two individuals did not undermine the significance of any finding reported here, among them the ANCOVA interaction of Time and CTQ scores [$F(1, 12) = 6.39$, $p = .027$, $\eta^2 = 0.345$].

Discussion

The present study explored the influence of childhood trauma on change in relationship satisfaction after intensive couple therapy. Fifteen couples—a total of 30 individuals—went through an initial waiting period and subsequent

Table 4. Subgroup analyses.

Mean CSI scores	T_0	T_1	T_2	$\Delta(T_1–T_0)$	$\Delta(T_2–T_1)$
Group I	116.8	114.0	121.1	−2.8	7.1
(CI)	(13.5)	(10.9)	(8.9)	(8.8)	(6.3)
Group II	121.9	125.7	121.8	3.8	−3.9
(CI)	(13.5)	(14.1)	(14.1)	(9.3)	(5.1)

Mean score with 95%-confidence interval (CI) on the Couple Satisfaction Index (CSI; Funk & Rogge, 2007) before (T_0) and immediately after the waiting period (T_1) and treatment phase (T_2). Thirty individuals went through an initial waiting period [$\Delta(T_1–T_0)$] and subsequent treatment phase [$\Delta(T_2–T_1)$]. Participants are assigned to two groups based on whether they were in the moderate-to-extreme (Group I; $n = 13$) or none-to-moderate range (Group II; $n = 17$) on at least one subscale of the Childhood Trauma Questionnaire (CTQ; Klinitzke et al., 2012). A repeated-measures analysis of covariance ($n = 30$) revealed a significant interaction between CTQ scores and change in CSI performance ($p = .012$).

treatment phase, with each stage lasting 5 weeks. None of the participants suffered from acute mental disorders, as ruled out via interviews and ISR screening before study enrollment. The intervention involved weekly 2-hour sessions of integrative couple therapy drawing on psychodynamic, cognitive-behavioral, humanistic and family-systems theory, as detailed above. All couples completed the entire treatment program. While controlling for potential confound through relationship satisfaction at baseline, statistical analyses revealed a significant interaction between CTQ scores and change in CSI performance. Originating mainly from CTQ subscales emotional abuse, physical abuse and emotional neglect, this interaction explained almost 39% of the variance caused by change in relationship satisfaction (η^2 = 0.387). Higher CTQ scores coincided with greater CSI gains (see Tables 2 and 4). As expected, no significant CSI increase occurred during the waiting period. Taken together, these results suggest that history of childhood trauma may be relevant to the outcome of couple therapy.

The current results are insightful in light of a recent meta-analysis that identified relationship satisfaction before treatment as a major predictor of efficacy in couple therapy (Roddy et al., 2020). At first glance, our data may imply that history of childhood trauma accounts for residual variance not attributable to pretreatment relationship satisfaction, and *vice versa*. However, the overall picture may be more nuanced and merits a closer look. It remains debatable to what degree history of childhood trauma and pretreatment relationship satisfaction are truly separable phenomena. As outlined above, childhood trauma may lead to formerly adaptive, now possibly harmful compensatory strategies in interpersonal conflicts that carry a certain risk for adult relationship satisfaction (Basham & Miehls, 2004; Hecker, 2007; Johnson & Courtois, 2009). Aside from this central premise of our study, history of childhood trauma may reduce the ability of secure attachment (Baer & Martinez, 2006), a prerequisite for long-term commitment (Bowlby, 1982; Hazan & Shaver, 1987). While not assessed directly in our study, impaired ability of secure attachment is likely to diminish relationship satisfaction, as implied by cross-sectional research (Cederbaum et al., 2020; Godbout et al., 2020; Lassri et al., 2016; Lemieux & Byers, 2008; Mullen et al., 1996; Schloredt & Heiman, 2003; Seehuus et al., 2015; Vaillancourt-Morel et al., 2019) and longitudinal data (Vaillancourt-Morel et al., 2021). In other words, some of the explained variance seemingly linked to pretreatment relationship satisfaction may actually depend on history of childhood trauma. Accordingly, our *post-hoc* evaluations showed a significant association between childhood trauma and adult relationship satisfaction immediately before treatment (ρ = −0.501; $p = .005$), although not prior to the waiting period (ρ = −0.203; $p = .281$; see Table 2). Future research will need to verify if—and to what extent, positive or negative—poor pretreatment relationship satisfaction may essentially be an expression of "trauma in disguise."

So far, 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 interpretations regarding distinct mechanisms of change in experimental research. The same holds true in the present study. For now, the strength of our data pertains solely to statements about the practicability of integrative couple therapy for a group of responders on validated measures of childhood trauma and adult relationship satisfaction in a non-psychiatric outpatient setting. We presume that our broad definition of relationship satisfaction, including both sexual and non-sexual aspects, and non-clinical setting may have contributed to the observed results, contrary to previous work with women suffering from vestibulodynia where greater severity of childhood trauma diminished the treatment outcome (Charbonneau-Lefebvre et al., 2022), and with psychiatric inpatients where no change was evident at the individual or couple level (Whittaker et al., 2023). We are open to the possibility that participants would have made more progress if pretreatment performance on the CSI had been lower. In keeping with the "trauma-in-disguise" hypothesis proposed above, the fairly high average relationship satisfaction at baseline may have provided little room for history of childhood abuse or neglect to surface as critical material to ultimately move the treatment forward. We nonetheless wish to emphasize the substantial positive association between CTQ scores and CSI gains during treatment ($\rho = 0.480$; $p = .007$; see Table 2).

To overcome caveats of the current study, future work should benefit from full randomization in a parallel-group design to reduce risk of bias, rely on a comprehensive German-speaking norm sample for our primary outcome, identify patterns of change in mixed-model analyses with sufficient data for each category of trauma, and quantify the ability of secure attachment as a moderator of treatment efficacy. In addition, a subsequent study may incorporate treatment sessions within a broader context of psychotherapy to ensure flexibility in setting to focus on trauma at the individual and couple level, whenever appropriate, in a more diverse sample (e.g., to accurately reflect non-heteronormative reality). Finally, visual and auditory externalization techniques from humanistic and family-systems psychotherapy appeared to be feasible as complementary strategies in our study protocol, as outlined above. Arguably, these strategies may be especially well suited to deal with childhood trauma, since they playfully navigate the fine line between creating space for spontaneous emotions, thoughts, and sensations while not uncovering memories that are potentially harmful to couples in terms of timing and dosage. In our experience with the study protocol, visual and auditory externalization techniques may excel in not raising suspicion of being manipulative, thus making it easier for clients to engage in the treatment sessions. This is particularly pertinent as some clients may be surprised, hesitant or even reluctant to

discuss childhood trauma when undergoing couple therapy. We therefore believe that further research into externalization techniques may help develop a promising adjunct to couple therapy that combines effortlessly with established methods in the field.

As far as we are aware, the current study is one of the first to investigate the influence of childhood trauma on progress in couple therapy beyond measures of sexual function and pleasure in a non-psychiatric outpatient setting. Our results consolidate severity of childhood trauma as a possible key predictor of change in couple therapy. This finding suggests that trajectories of change in couple therapy—previously attributed to relationship satisfaction before treatment—may have a root in history of childhood trauma. Clients, practitioners, and researchers alike are encouraged not to prematurely judge history of childhood trauma as an unfavorable sign for the outcome of couple therapy, but to cautiously assume a strong capacity for growth in romantic relationships for adults with early-life exposure to abuse or neglect.

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Data availability statement

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).

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