

Supporting information to the article

'The effectiveness of family constellation therapy in improving mental health: A systematic review'

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Table S1. Search terms used in the electronic data base searches

(Languages are ordered by number of hits resulted from the searches)

Language	Groups of search terms			# of hits
English	Family Constellation(s)	Systemic Constellation(s) System Constellation(s)	Structural Constellation(s)	660
German	Familienaufstellung(en) Familien Aufstellung(en) Familienstellen	Systemaufstellung(en) System Aufstellung(en)	Strukturaufstellung(en) Struktur Aufstellung(en)	509
Spanish	Constelación Familiar Constelaciones Familiares	Constelación Sistémica Constelaciones Sistémicas Constelación de Sistema Configuración Sistémica Configuraciones Sistémicas	Constelación Estructural Constelaciones Estructurales	75
French	Constellation Familiale	Constellation Systémique	Constellation Structurale	22
Dutch	Familie(-)Opstelling(en)	Systeem(-) Opstelling(en)	Structuur(-) Opstelling(en)	13
Hungarian	Családállítás Családfelállítás	Rendszerállítás Rendszerfelállítás	Struktúraállítás Struktúrafelállítás	4

Table S2. Excluded items and reasons for exclusion

The table below contains the 55 items (in alphabetical order) that were excluded from the evidence synthesis in the eligibility checking phase (see Fig 1 in the paper) and the reason for their exclusion.

Item	Reason for exclusion
Asztalos, M., Angster, M., & Puzsai, I. (2011). Family constellations in therapy-resistant cases of patients suffering from depression and a wish to die. <i>International Journal of Psychiatry in Clinical Practice</i> , 2(sup2), 15. doi: http://dx.doi.org/10.3109/13651501.2011.626553	Abstract only
Bauriedl, T. (2004). Wirkmechanismen und Folgen von Aufstellungen nach Bert Hellinger [Effective factors and effects of family constellations according to Bert Hellinger]. <i>Psychologische Medizin</i> , 15(4), 32-37.	Not empirical
Brand - ter Horst, K. (2013). <i>Systeemopstellingen. Ervaring En Herstel</i> Universiteit Twente.	Not prospective
Brömer, H. (2014). <i>Family constellations in the context of drug rehabilitation: a description and an assessment 1998-2013</i> . Paper presented at the 1st European Conference on Systemic Research in Therapy, Education and Organizational Development, Heidelberg.	Not prospective
Brömer, H. (2016). Drogensucht und Familienaufstellungen: Erfahrungen und Erkenntnisse. <i>Praxis der Systemaufstellung</i> , 19(1), 54-63.	Not empirical
Carnabucci, K. (2018). The Challenge and Promise for Psychodrama and Family and Systemic Constellations. <i>The Journal of Psychodrama, Sociometry, and Group Psychotherapy</i> , 66(1), 81-91.	Not empirical

Carstens, A. (1999). <i>Was bewegen Familienaufstellungen? Auswertung zweier Kurse mit Teilnehmern einer Angstselbsthilfegruppe. Katholische Stiftungsfachhochschule München. Diplomarbeit.</i>	Qualitative, retrospective
Chu, V. (2008). <i>Neugeburt einer Familie. Familienstellen in der Gestalttherapie [Rebirth of a family. Family constellation in Gestalt therapy]</i> . Wuppertal: Peter Hammer Verlag.	Qualitative, retrospective
Cohen, D. B. (2008). <i>Systemic Family Constellations and their use with prisoners serving longterm sentences for murder or rape</i> . Faculty of Saybrook Graduate School and Research Center, San Francisco, California.	Qualitative, retrospective
Cohen, D. B. (2010). Guilt, Responsibility, and Forgiveness: Lessons from Lifers in Prison <i>Forgiveness and Reconciliation: Psychological Pathways to Conflict Transformation and Peace Building</i> (pp. 137-151). New York, NY: Springer New York.	Not empirical
Eidmann, F. (1999). Malaika - Ein Bericht über die Nachwirkungen einer Aufstellung. <i>Praxis der Systemaufstellung</i> (2), 51-53.	Not empirical
Estévez, A. M. (2009). <i>Percepción de los-as pacientes de gerencia integral sobre el efecto de las constelaciones familiares en su proceso de terapia familiar sistémica</i> . PUCMM	Full-text not available (despite numerous attempts to contact the library of the university where this dissertation was completed)
Franke, U. (1996). <i>Systemische Familienaufstellung. Eine Studie zu systemischer Verstrickung und unterbrochener Hinwendung unter besonderer Berücksichtigung von Angstpatienten</i>	Qualitative, retrospective

<p>[<i>Systemic family constellation. A study into systemic entanglements and the interrupted movement with a special attention on individuals with anxiety disorders</i>]. München: Profil.</p>	
<p>Georgiadou, S. (2012). <i>Participants' experiences in Hellinger's family constellation work: A grounded theory study. Dissertation.</i> University of Louisiana at Monroe, Ann Arbor.</p>	<p>Qualitative, retrospective</p>
<p>Gómez, F. G., & Doñoro, A. M. P. (2005). Investigación sobre la aplicación del método de las Constelaciones Familiares de Bert Hellinger a la supervisión clínica. <i>Revista de investigación en psicología</i>, 8(1), 29-50.</p>	<p>Investigates therapists, not clients</p>
<p>Gräbs, C. (2014). A Self-Evaluation of 5-year experience with Family Constellations in outpatient addiction therapy at an addiction-counselling centre in Berlin. Retrieved from http://broemer-berlin.de/wp-content/uploads/2015/04/Self-Evaluation-experience-with-Family-Constellations-in-outpatient-addiction-therapy.pdf</p>	<p>Not empirical</p>
<p>Gräßer, M., & Hovermann, E. (2019). <i>Wie stehen wir zueinander? Systeme aufstellen in Psychotherapie, Coaching und Beratung</i> [How do we stand with each other? System constellation in psychotherapy, coaching, and counseling] Weinheim: Beltz</p>	<p>Not empirical</p>
<p>Häuser, W., Klein, R., & Schmidt-Keller, B. (1998). Familienaufstellen mit Bert Hellinger aus der Sicht teilnehmender Klientinnen und ihrer Therapeutinnen [Family constellation with Bert Hellinger from the clients' and their therapists' perspective]. In G. Weber (Ed.), <i>Praxis des Familien-Stellens</i> (pp. 478-488). Heidelberg: Carl-Auer-Systeme.</p>	<p>Qualitative, retrospective</p>
<p>Hurley, J., Koenning, M., & Bray, A. (2018). Responding to intergenerational psychological</p>	<p>Not empirical</p>

trauma: a literature review paper on the place of Family Constellation Therapy. <i>PACJA: Psychotherapy and Counselling Journal of Australia</i> , 6(1).	
Jafferany, M., Capec, S., Yaremkevych, R., Andrashko, Y., Capec, G., & Petrek, M. (2019). Effects of family constellation seminars on itch in patients with atopic dermatitis and psoriasis: A patient preference controlled trial. <i>Dermatologic Therapy</i> , 32(6), 7. doi:10.1111/dth.13100	Outcome related to physical and not mental health
Jasna, H. (2017). Family constellation as a treatment for overcoming the consequences of violence on victims. <i>Temida</i> , 20(2), 219-240.	Not empirical
Jost, R. (2007). Familienaufstellungen im Urteil der Klienten. Eine retrospektive Befragung [Family constellations according to clients' judgement. A retrospective inquiry]. <i>Blickpunkt EFL-Beratung</i> , 4(18), 56-59.	Retrospective
Junge, G. (1998). <i>Familienaufstellung nach Bert Hellinger. Eine qualitative Untersuchung anhand einer Nachbefragung von Klienten</i> [Family constellations of Bert Hellinger. A qualitative study based on client interviews]. Universität Hamburg, Hamburg.	Qualitative, retrospective
Köth, A. (2006). <i>Zur Wirkungsweise von "Standort-Aufstellungen" als pädagogisch-therapeutische Interventionstechnik: eine katamnestiche Studie aus einer ambulanten Psychotherapiegruppe</i> . Hamburg: Kovač.	Qualitative, retrospective
Laireiter, A.-R., & Mitterhuemer, J. (2011). Die Beurteilung von Familienaufstellungen - Eine Konsumenten-Studie [Evaluation of family constellations - A consumer study]. <i>Psychologie in Österreich</i> , 31(2-3), 136-147.	Retrospective

Langlotz, E. R. (2004). Abtreibung als Trauma. <i>Praxis der Systemaufstellung</i> , 4(2), 67-69.	Case study
Langlotz, E. R. (2006). Finden was wirkt... Eine Effizienzprüfung für das "Prozessorientierte Familienstellen" [Finding what works... An effectiveness study on process-oriented family constellations]. <i>Systemische Aufstellungspraxis</i> , 3(6), 37-37.	Duplum [data content identical with Langlotz, E. R. (2006). Effizienzforschung „prozessorientiertes“ Familienstellen. Neue Ergebnisse mit dem SCL 90 R. Retrieved 16.12.2016, from http://www.e-r-langlotz.de/systemische_familietherapie/public_effizienzforschung.php
Longo-Lockspeiser, L. (2018). Meaning Making Through Family Constellation Work. In D. Trimble (Ed.), <i>Engaging with Spirituality in Family Therapy: Meeting in Sacred Space</i> (pp. 89-106). Cham: Springer International Publishing Ag.	Not empirical
Loos, P. (1999). <i>Veränderungen in der Partnerschaft nach Familienaufstellungen von Bert Hellinger</i> . Diplomarbeit. Universität Hamburg.	Qualitative, retrospective
Luévanos, F. C. El equilibrio en el sistema familiar como sustento del desarrollo integral de niños y adolescentes. Fundamentos teórico-metodológicos desde el enfoque de las constelaciones familiares y los órdenes del amor.	Not empirical
Mahr, A., & Brömer, H. (2008). Aufstellungen in der Suchtrehabilitation - Erfahrungen und	Single assessment (comparisons)

Ergebnisse [Constellations in addiction rehabilitation. Experiences and results]. <i>Praxis der Systemaufstellung</i> , 11(2), 66-74.	of substance use rehabilitation program completion rate between intervention and control group)
Malessa, M. (2001). <i>Familien-Stellen nach Bert Hellinger. Verstrickungen und Lösung bei sexuellem Mißbrauch. Diplomarbeit.</i> Universität Hamburg.	Qualitative, retrospective
Maric, B. (2007). <i>Welche Wirkungen haben Aufstellungen? Supervisionsaufstellungen aus Sicht der Aufstellenden. Thesis,</i> Katholische Stiftungsfachhochschule München.	Qualitative, retrospective
Mraz, R. (2006). Nachgeprüft. Ergebnisse einer 10-Jahres-Katamnese aus über 850 Aufstellungen [Proven. Results of a 10-year retrospective study based on more than 850 constellations]. <i>Praxis der Systemaufstellung</i> , 9(2), 94-101.	Retrospective [data content identical with Mraz, R. Katamnese. Retrieved from http://mraz.de/Untersuchung/Nachgeprüft__Katamnese.pdf]
Mraz, R. Katamnese. Retrieved from http://mraz.de/Untersuchung/Nachgeprüft__Katamnese.pdf	Retrospective
Obendiek, J.-H., & Hunger-Schoppe, C. <i>Projektskizze. Wirksamkeit emotions- und aktionszentrierter systemischer Verfahren, speziell Familienaufstellungen, bei psychischen und Verhaltensstörungen durch psychotrope Substanzen.</i> Retrieved from	Empirical data not yet available
Park, S. (2018). <i>The narrative inquiry on mourning experience with the family constellation therapy</i> [dissertation]. Asan: Sun Moon University.	Full text not available, most likely qualitative study

<p>Pritzker, S. E., & Duncan, W. L. (2019). Technologies of the Social: Family Constellation Therapy and the Remodeling of Relational Selfhood in China and Mexico. <i>Culture, Medicine and Psychiatry</i>, 43(3), 468-495. doi:10.1007/s11013-019-09632-x</p>	<p>Qualitative study</p>
<p>Raich, K. (2008). <i>Nachhaltigkeitsfördernde Faktoren bei systemischen Aufstellungsverfahren: ExpertInnen- und KlientInnensicht insbesondere am Beispiel von klassischen Systemaufstellungen und Dialogisch-Systemischer Aufstellungsarbeit</i>. (PhD).</p>	<p>No effectiveness data</p>
<p>Ramos, S., & Ramos, J. A. (2019). Process of Change and Effectiveness of Family Constellations: A Mixed Methods Single Case Study on Depression. <i>Family Journal</i>, 27(4), 418-428. doi:10.1177/1066480719868706</p>	<p>No effectiveness data (case study)</p>
<p>Rink, D. R. Impact of family constellation upon the financial advisor-client dyad: A conceptualization. <i>Journal of Applied Economics and Business</i>, 7(2), 54-81.</p>	<p>Not related to the intervention</p>
<p>Ruhl, M. R. (2013). <i>Clients' Experiences of Family Constellations in Psychological Healing</i>. (3567720 Psy.D.), Michigan School of Professional Psychology, Ann Arbor</p>	<p>Qualitative, retrospective</p>
<p>Ruppert, F. (2010). Eine kleine Studie zur Wirkungsforschung. In F. Ruppert (Ed.), <i>Trauma, Bindung und Familienstellen. Seelische Verletzungen verstehen und heilen</i> (4th ed., pp. 238-246). Stuttgart.</p>	<p>Qualitative, retrospective [data content identical with Maric, B. (2007). <i>Welche Wirkungen haben Aufstellungen? Supervisionsaufstellungen aus Sicht der Aufstellenden</i>. Thesis, Katholische</p>

	Stiftungsfachhochschule München]
Sas, V. (2010). <i>The investigation of the vanishing twin syndrome through the method of family constellation. Thesis.</i> (Master's), Károli Gáspár University of the Reformed Church in Hungary, Budapest.	No effectiveness data
Schweitzer, J., Bornhäuser, A., Hunger, C., & Weinhold, J. (2012). Wie wirksam sind Systemaufstellungen? Bericht über ein laufendes Forschungsprojekt [How effective are family constellations? Report on an ongoing research project]. <i>Praxis der Systemaufstellung</i> , 15(1), 66-69.	Study protocol without empirical data
Tedesco, D. (2018). <i>Invisible Connections: A Guide to Using Systemic Constellations in Families and Organizations to Create the Personal and Professional Relationship You Want.</i> Balboa Press.	Not empirical
Thomas, G. K. (2010). <i>Therapy in the new millennium: New sciences and their application to therapy. Effectiveness of systemic family constellations. Thesis.</i> California State University, Northridge.	Retrospective
Weber, G. (2007). Symptoms/Illness und Systems-Constellations; SISC-Studie. An international Multicentric Study for the Exploration of the Processes within and the Effects of System-Constellations of Patients with longlasting Symptoms. Retrieved from http://familienaufstellung.org/forschungs_db.php?a=view&recid=20	Study protocol without empirical data
Weber, G., & Drexler, D. (2002). Familien-Stellen bei Psychosen [Family constellation in	Not empirical

<p>psychoses]. <i>Psychotherapie im Dialog</i>, 3(3), 243-247. doi:10.1055/s-2002-34539</p>	
<p>Weinhold, J. (2017). <i>Familienaufstellungen wissenschaftlich betrachtet - ein Forschungsbericht [Family constellations scientifically considered - A research report]</i>. Retrieved from</p>	<p>Review paper</p>
<p>Weinhold, J., Bornhäuser, A., Hunger, C., & Schweitzer, J. (2014). <i>Dreierlei Wirksamkeit. Die Heidelberger Studie zu Systemaufstellungen</i>. Heidelberg: Carl-Auer Verlag.</p>	<p>Duplum [no relevant data beyond those published in the following 3 papers: Hunger, C., Bornhäuser, A., Link, L., Schweitzer, J., & Weinhold, J. (2014). Improving experience in personal social systems through family constellation seminars: Results of a randomized controlled trial. <i>Family Process</i>, 53(2), 288-306. doi:10.1111/famp.12051;</p> <p>Hunger, C., Weinhold, J., Bornhäuser, A., Link, L., & Schweitzer, J. (2015). Mid- and long-term effects of family constellation seminars in a general population sample: 8- and 12-month follow-up. <i>Family</i></p>

	<p>Process, 54(2), 344-358. doi:10.1111/famp.12102;</p> <p>Weinhold, J., Hunger, C., Bornhäuser, A., Link, L., Rochon, J., Wild, B., & Schweitzer, J. (2013). Family constellation seminars improve psychological functioning in a general population sample: results of a randomized controlled trial. <i>Journal of counseling psychology</i>, 60(4), 601-609. doi:10.1037/a0033539</p>
<p>Weinhold, J., Hunger, C., Bornhäuser, A., & Schweitzer, J. (2013). Wirksamkeit von Systemaufstellungen: Explorative Ergebnisse der Heidelberger RCT-Studie [Effectiveness of family constellations: Initial results of the Heidelberg RCT Study]. <i>Familiendynamik</i>, 38(1), 42-51.</p>	<p>Duplum [no relevant data beyond those published in the following 2 papers: Hunger, C., Bornhäuser, A., Link, L., Schweitzer, J., & Weinhold, J. (2014). Improving experience in personal social systems through family constellation seminars: Results of</p>

	<p>a randomized controlled trial. <i>Family Process</i>, 53(2), 288-306. doi:10.1111/famp.12051;</p> <p>Weinhold, J., Hunger, C., Bornhäuser, A., Link, L., Rochon, J., Wild, B., & Schweitzer, J. (2013). Family constellation seminars improve psychological functioning in a general population sample: results of a randomized controlled trial. <i>Journal of Counseling Psychology</i>, 60(4), 601-609. doi:10.1037/a0033539</p>
Welford, E. (2019). Healing the fallout from transgenerational trauma: Supporting clients in making peace with their history. <i>Transactional Analysis Journal</i> , 49(4), 324-338. doi: 10.1080/03621537.2019.1650233	Not empirical
Wen, Q., & Peng, X. (2015). Effect of family constellation therapy on the spouses of female tumor patients. <i>Modern Clinical Nursing</i> , 14(10), 20-24.	In Chinese
Zseni, A., Varga, K. S., Angster, M., Béleczi, N., Füzér, G., Néveri, E., . . . Lórik, D. (2011).	Retrospective

Első lépés a családállítás hatásainak nyomában [First step of tracing the effects of family constellation – A follow-up study]. <i>Magyar Pszichológiai Szemle</i> , 66(2), 269-298. doi:10.1556/MPSzle.66.2011.2.2	
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Table S3. Publication type and sample characteristics of the included studies

Study	Publication type	Sample	Sex of participants	Age of participants	Control group
			1: Only male 2: Only female 3: Mixed (% of females)	Reported as M+/SD unless otherwise specified	0: No CG 1: Convenience CG 2: Matched CG 3: Randomized CG
Geils & Edwards, 2018	Peer reviewed journal article	General population (<i>n</i> =8), South Africa	3, 87.5%	47.6±7.9, range: 36-62	0
Goode, 2015	Thesis / dissertation	Nursing students (<i>n</i> =75), United Kingdom	3, 96%	not provided	3
Höppner, 2006	Book / book chapter	General population (<i>n</i> =70), Germany	3, 81.4%	17-67, mode: 41-50	1
Hunger et al., 2014	Peer reviewed journal article	General population (<i>n</i> =208), Germany	3, 79%	48±10	3
Hunger et al., 2015	Peer reviewed journal article	General population (<i>n</i> =104), Germany	3, 84%	47±9	0
Krüger & Schmidt-Michel, 2003	Peer reviewed journal article	Psychiatric outpatients with a history of psychiatric hospitalization	3, 55%	mean: 37 years, range: 21-63	2

Study	Publication type	Sample	Sex of participants	Age of participants	Control group
			1: Only male 2: Only female 3: Mixed (% of females)	Reported as M+/SD unless otherwise specified	0: No CG 1: Convenience CG 2: Matched CG 3: Randomized CG
		(<i>n</i> =20), Germany			
Langlotz, 2005	Website	General population (<i>n</i> =35), Germany	not reported	not reported	0
Langlotz, 2006	Website	Individuals with at least two SCL-90R scales showing elevated values (<i>n</i> =21), Germany	3, 66.6%	20-86 range	0
Rieger & Stückemann, 1999	Thesis / dissertation	General population (<i>n</i> =48), Germany	3, 73%	41.4 ± 7.6	0
Schumacher, 2000	Book / book chapter	General population (<i>n</i> =53), Germany	3, 69%	21-60 range	0
Sethi, 2009	Thesis / dissertation	General population (<i>n</i> =30), Australia	3, 63%	25-59 range	0
Weinhold et al., 2013	Peer reviewed journal article	General population (<i>n</i> =208), Germany	3, 79%	48±10	3

Table S4. Intervention-related characteristics of the included studies

Study	Length of intervention workshop	Length of follow-up	Training of intervention provider	Setting of intervention delivery
Geils & Edwards, 2018	not described	no follow-up (only pre and post)	unknown	unknown
Goode, 2015	1-hour weekly sessions for 6 weeks	no follow-up (only pre and post)	non-expert in method, nurse-anthropologist-teacher (based on website)	public
Höppner, 2006	2- or 3-day workshops	12 or 16 weeks	psychotherapist, beginner (based on her website, https://systemische-therapie-hall.de); psychologist, expert in field	mixed (university and private clinic with no funding)
Hunger et al., 2014	3-day workshop	2 weeks and 4 months	experts in method, 1 clinical psychologist + 1 psychiatrist	public
Hunger et al., 2015	3-day workshop	8 and 12 months	experts in method, 1 clinical psychologist + 1 psychiatrist	public
Krüger & Schmidt-Michel, 2003	half-day workshops	not specified (assessment at beginning and end of outpatient treatment)	unknown	public

Study	Length of intervention workshop	Length of follow-up	Training of intervention provider	Setting of intervention delivery
Langlotz, 2005	2- and 3-day workshops	no follow-up (only pre and post)	expert in method, psychiatrist	private
Langlotz, 2006	2- and 3-day workshops	6 and 12 months	expert in method, psychiatrist	private
Rieger & Stückemann, 1999	2-3 day workshops	3 months	experts in method, mainly psychologists (4/5), 1 special education teacher	private
Schumacher, 2000	2- and 3-day workshops and individual constellations;	1 and 4 months	unknown	private
Sethi, 2009	2- and 3-day workshops and individual constellations;	1 week	non-expert in method, master of counselling (based on website)	private
Weinhold et al., 2013	3-day workshop	2 weeks (no post intervention) and 4 months	experts in method, 1 clinical psychologist + 1 psychiatrist	public

Table S5. Design and methodological characteristics of the studies included

Study	Design	MMAT	MMAT	MMAT	MMAT	MMAT	MMAT	MMAT	Statistics	Total score
		S1	S2	1	2	3	4	5		
Geils & Edwards, 2018	SG	1	1	0	1	1	0	1	0	5
Goode, 2015	RCT	1	1	1	1	0	0	0	0	4
Höppner, 2006	two-group, non-randomized crossover design	1	1	1	1	1	0	1	0	6
Hunger et al., 2014†	RCT	1	1	1	1	1	0	1	1	7
Hunger et al., 2015†	SG	1	1	1	1	1	0	1	1	7
Krüger & Schmidt-Michel, 2003	two-group, matched control group design	1	1	1	1	1	1	1	0	7
Langlotz, 2005	SG	1	1	0	1	1	0	1	0	5
Langlotz, 2006	SG	1	1	0	1	0	0	1	0	4

Study	Design	MMAT	MMAT	MMAT	MMAT	MMAT	MMAT	MMAT	Statistics	Total score
		S1	S2	1	2	3	4	5		
Rieger & Stückemann, 1999	SG	1	1	1	1	1	0	1	1	7
Schumacher, 2000	SG	1	1	1	1	0	0	1	0	5
Sethi, 2009	SG	1	1	0	0	1	0	1	0	4
Weinhold et al., 2013†	RCT	1	1	1	1	1	0	1	1	7

† Marked studies are based on the same/partially overlapping sample

SG: single group, pre-post design; RCT: randomized-controlled trial

Table S6. Main findings of the included studies

Study	Assessment tools for outcome variables	Results	Significant treatment benefit
Geils & Edwards, 2018	Self-perceived intuition assessed by the Types of Intuition Scale	No change in intuition scores ($p=0.06$; $d=0.30$)	No
Goode, 2015	Fear of death assessed by the Multidimensional Fear of Death Scale	No change in fear of death in either the intervention ($p=0.189$, $d=0.42$) or the no-intervention control group ($p=0.810$, $d=0.08$), improvement in the control group with fear-of-death-specific intervention ($p=0.002$, $d=0.96$)	No
Höppner, 2006	Psychopathology (assessed by SCL90R's global severity index); positive self-image (Frankfurter Selbstkonzeptskalen, FSKN); self-acceptance (Skala zur Erfassung der Selbstakzeptierung, SESA); general mental health (Skalen zur Psychischen Gesundheit,	Improvement in all but one target areas in the intervention group: Psychopathology: $p<0.001$, $d=0.46$; positive self-image: $p<0.001$, $d=0.37$; general mental health: $p<0.001$, $d=0.24$; self-acceptance: $p<0.001$, $d=0.35$; self-doubt: $p<0.001$, $d=0.38$; general self-efficacy: $p=0.005$, $d=0.23$, external control beliefs: $p=0.268$, $d=0.09$, sense of coherence: $p<0.001$, $d=0.26$. No change in the control group in any areas (between pre-intervention assessments): Psychopathology: $p=0.313$, $r=0.30$; positive self-image: $p=0.213$, $r=0.38$; general mental health: $p=0.625$, $r=0.15$; self-acceptance: $p=0.092$, $r=0.51$; self-doubt:	Yes

Study	Assessment tools for outcome variables	Results	Significant treatment benefit
	SPG); self-doubt (Unsicherheitsfragebogen, UFB); general self-efficacy (Fragebogen zu Kompetenz- und Kontrollüberzeugungen / Selbstkonzept eigener Fähigkeiten & Internalität, FKK SKI), external control beliefs (Fragebogen zu Kompetenz- und Kontrollüberzeugungen / Social bedingte Externalität & Fatalistische Externalität, FKK PC), sense of coherence (Fragebogen zur Lebensorientierung, SOC)	$p=0.202$, $r=0.39$; general self-efficacy: $p=0.590$, $r=0.16$; external control beliefs: $p=0.798$, $r=0.08$; sense of coherence: $p=0.878$, $r=0.05$. Improvement in 3 areas in the control group after receiving intervention ($n=11$). Psychopathology: $p=0.008$, $r=0.81$; positive self-image: $p=0.022$, $r=0.69$; general mental health: $p=0.074$, $r=0.54$; self-acceptance: $p=0.028$, $r=0.66$; self-doubt: $p=0.173$, $r=0.41$; general self-efficacy: $p=0.358$, $r=0.28$; external control beliefs: $p=0.444$, $r=0.23$; sense of coherence: $p=0.721$, $r=0.11$	
Hunger et al., 2014	Perceived quality of personal social system in terms of belonging, autonomy, accord,	Larger improvement in the intervention group than in the control group in all but one assessed target areas: belonging (T2: $p=0.021$, $d=0.32$; T3: $p=0.075$, $d=0.27$), autonomy (T2:	Yes

Study	Assessment tools for outcome variables	Results	Significant treatment benefit
	and confidence (assessed by Experience in Social Systems Questionnaire, personal domain); “Interpersonal Problematic Relations” (IPR) scale derived from the Outcome Questionnaire (OQ-45) and the “Interpersonal Problems” (IP) scale derived from the Tool for the Evaluation of the Psychotherapeutic Progress (FEP)	$p < 0.001, d = 0.62$; T3: $p < 0.001, d = 0.61$), accord (T2: $p < 0.001, d = 0.59$; T3: $p = 0.001, d = 0.50$), confidence (T2: $p < 0.001, d = 0.54$; T3: $p = 0.031, d = 0.38$), experience in social systems altogether (T2: $p < 0.001, d = 0.61$; T3: $p < 0.001, d = 0.53$); interpersonal problematic relations (T2: $p = 0.035, d = 0.32$; T3: $p = 0.021, d = 0.36$); interpersonal problems (T2: $p = 0.003, d = 0.45$; T3: $p < .001, d = 0.53$)	
Hunger et al., 2015	Overall psychological functioning defined by symptom distress, quality of interpersonal relations, and social role performance (assessed by OQ45); overall	Improvement in all four areas: overall psychological functioning (T2: $p < 0.001, d = 0.41$; T3: $p < 0.001, d = 0.49$); overall psychological distress (T2: $p < 0.001, d = 0.39$; T3: $p = 0.001, d = 0.50$); goal attainment (T2: $p < 0.001, d = 0.35$; T3: $p < 0.001, d = 0.44$); perceived quality of personal social system (T2: $p < 0.001, d = 0.61$; T3: $p < 0.001, d = 0.57$). Clinical	Yes

Study	Assessment tools for outcome variables	Results	Significant treatment benefit
	<p>psychological distress defined by well-being, symptom-distress, interpersonal relationships, and congruence (assessed by Questionnaire for the Evaluation of Treatment Progress); goal attainment assessed by the Incongruence Questionnaire; perceived quality of personal social system in terms of belonging, autonomy, accord, and confidence (assessed by Experience in Social Systems Questionnaire, personal domain)</p>	<p>significance: depending on the indicator, reliable positive change in 33-35% of participants at 8-month follow-up (T2) and 33-40% at 12-month follow-up (T3)</p>	
<p>Krüger & Schmidt-Michel, 2003</p>	<p>Psychopathology assessed by the Positive and Negative Syndrome Scale (PANSS)</p>	<p>Decrease in psychopathology scores in the intervention group ($p=0.016$, $d=0.71$), while no significant decrease in symptom scores in the control group ($p=0.083$, $d=0.43$). No significant</p>	<p>Yes</p>

Study	Assessment tools for outcome variables	Results	Significant treatment benefit
		time x group interaction ($p=0.239$, $\eta^2=0.076$) [most likely due to low statistical power – also reflected by the width of the confidence interval for this study in the meta-analysis, see the online Supporting Information to this article]	
Langlotz, 2005	Psychopathology (anxiety, depression, paranoia, schizophrenia, borderline features, suicidal ideation; all assessed by Personality Assessment Inventory)	Reduction in all 6 psychopathology domain scores: anxiety ($p<.001$, $d=0.82$), depression ($p<.001$, $d=0.69$), paranoia ($p<.001$, $d=0.34$), schizophrenia ($p<.001$, $d=0.60$), borderline features ($p<.001$, $d=0.84$), suicidal ideation ($p<.001$, $d=0.49$)	Yes
Langlotz, 2006	Psychopathology assessed by SCL90R (somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, psychoticism, global severity index, hardness, and symptom number)	Decrease on psychopathology indicators at all 3 follow-up assessment points with the exception of phobic anxiety at T4: somatization (T2: $p=0.013$, $d=0.57$; T3: $p=0.001$, $d=0.54$; T4: $p=0.004$, $d=0.59$), obsessive-compulsive (T2: $p<0.001$, $d=0.95$; T3: $p=0.001$, $d=0.84$; T4: $p=0.001$, $d=0.87$), interpersonal sensitivity (T2: $p=0.001$, $d=0.84$; T3: $p<0.001$, $d=0.93$; T4: $p=0.001$, $d=0.86$), depression (T2: $p<0.001$, $d=1.02$; T3: $p=0.004$, $d=0.77$; T4: $p=0.002$, $d=0.80$), anxiety (T2: $p=0.010$, $d=0.74$; T3: $p=0.006$, $d=0.63$; T4: $p=0.001$, $d=0.89$), hostility	Yes

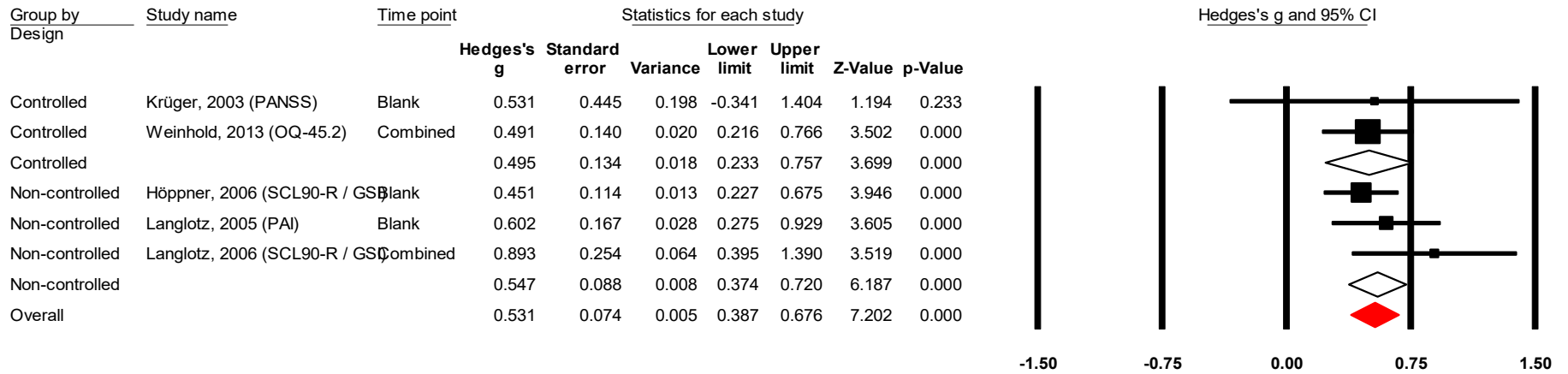
Study	Assessment tools for outcome variables	Results	Significant treatment benefit
		<p>(T2: $p=0.004$, $d=0.98$; T3: $p=0.005$, $d=0.79$; T4: $p=0.001$, $d=0.89$), phobic anxiety (T2: $p=0.014$, $d=0.43$; T3: $p=0.038$, $d=0.43$; T4: $p=0.139$, $d=0.33$), paranoid ideation (T2: $p=0.004$, $d=0.76$; T3: $p=0.002$, $d=0.66$; T4: $p=0.001$, $d=0.73$), psychoticism (T2: $p=0.001$, $d=0.88$; T3: $p=0.001$, $d=0.87$; T4: $p=0.001$, $d=0.83$), global wellness index (T2: $p=0.001$, $d=1.00$; T3: $p<0.001$, $d=0.97$; T4: $p=0.001$, $d=0.96$), positive symptom distress index (T2: $p<0.001$, $d=1.14$; T3: $p=0.001$, $d=0.73$; T4: $p<0.001$, $d=0.95$), and positive symptom total (T2: $p=0.004$, $d=0.71$; T3: $p=0.001$, $d=0.81$; T4: $p=0.001$, $d=0.84$)</p>	
Rieger & Stückemann, 1999	Overall wellbeing defined by Fatigue, Depression, Anger, Vigor (assessed by an abbreviated version of the Profile of Mood States), perceived quality of family relationships in terms of Attachment and Autonomy (assessed by Subjektives	Improvement in perceived relationship with mother (autonomy: $p<0.001$, $\eta=.64$; attachment: $p=0.003$, $\eta=.52$), no change in perceived relationship with father (autonomy: $p=.335$, $d=0.21$; attachment: $p=0.101$, $d=0.29$), mixed results regarding perceived relationship with spouse (autonomy: $p=0.043$, $\eta=.49$; attachment: $p=0.416$, $\eta=.52$), mixed results regarding perceived relationship with first child (autonomy: $p=.008$, $\eta=.78$; attachment: $p>0.999$, $d<0.01$); no change in perceived relationship with 2 nd child (autonomy: $p=.455$, $d=0.14$;	Yes

Study	Assessment tools for outcome variables	Results	Significant treatment benefit
	Familienbild Fragebogen)	attachment: $p=0.881$, $d=0.02$). Improvement in relation to fatigue ($p=0.004$, $d=0.91$), depression ($p=0.002$, $d=0.99$), vigor ($p=0.008$; $d=0.55$); no change in anger ($p=0.224$, $r=0.18$)	
Schumacher, 2000	Perceived quality of family relationships in terms of Attachment and Autonomy (assessed by Subjektives Familienbild Fragebogen)	Improvement in perceived family relationships in terms of autonomy (T2: $p=0.006$, $d=.28$; T3: $p<0.001$, $d=.51$) and attachment (T2: $p=0.001$, $d=.44$; T3: $p=0.020$, $d=.32$)	Yes
Sethi, 2009	Perceived quality of family relationships, perceived health and wellbeing; all through ad hoc questions	Improvement in perceived quality of family relationships as well as perceived health and wellbeing between pre- and post-intervention; however, formal statistical analyses of these changes were not conducted and not enough descriptive data were provided to allow the calculation of effect size	No
Weinhold et al., 2013	Psychological functioning (Outcome Questionnaire 45.2), distress (Questionnaire for the Evaluation of Treatment Progress), motivational incongruence	Larger improvement in the intervention group than in the control group on all three target areas: psychological functioning (T2: $p=0.003$, $d=0.45$; T3: $p=0.003$, $d=0.46$), distress (T2: $p<0.001$, $d=0.51$; T3: $p=0.001$, $d=0.51$), motivational incongruence (T3: $p<0.001$, $d=0.55$; T3: $p<0.001$, $d=0.52$)	Yes

Study	Assessment tools for outcome variables	Results	Significant treatment benefit
	(Incongruence Questionnaire)		

Values in bold are calculated by the review authors based on raw data reported in the original article or provided by the authors of the original studies (Dr. Krüger and Dr. Langlotz).

Figure S1. Study-level and pooled effect sizes from the meta-analysis on effectiveness in reducing non-diagnosis-specific



psychopathology