Effects of Competence Feedback on Psychotherapy Trainees' Self-Perceived Competence, Professional Self-Confidence, and Self-Disclosure

A Secondary Analysis of a Randomized Controlled Trial

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Abstract: *Background:* Feedback is considered one of the most important strategies in psychotherapy training. *Objective:* We investigated the effect of competence feedback on therapist self-perceived competence, professional self-confidence, and tendency to self-disclosure in supervision. *Method:* Master-level psychotherapy trainees (*N* = 67) were randomly assigned to a competence feedback group (CFG) or a control group (CG). Trainees in CFG repeatedly received feedback regarding their therapeutic competencies during cognitive behavioral therapy for 114 patients with a major depressive disorder. Feedback was provided by licensed psychotherapists, based on video tapes of the treatments. Trainees' therapeutic competencies, professional self-confidence, and tendency to self-disclosure in supervision were evaluated by self-report questionnaires. *Results:* Self-perceived competence improved significantly more in the CFG than in the CG. Professional self-confidence improved overall, but no differences between CFG and CG were found. Self-disclosure did not change significantly in general. *Conclusion:* We conclude that specific training strategies are necessary for achieving specific training aims.

Keywords: competence feedback, nondisclosure, psychotherapy training, professional self-confidence, therapeutic competence

Effekt eines Kompetenz-Feedbacks auf die selbst-wahrgenommene Kompetenz, berufsbezogenes Selbstvertrauen und die Selbstöffnung von Ausbildungstherapeut_innen. Sekundäranalyse einer randomisierten kontrollierten Studie

Zusammenfassung: *Theoretischer Hintergrund:* Feedback wird in der Psychotherapieausbildung als eine der wichtigsten Trainingsstrategien betrachtet. *Fragestellung:* Wir untersuchten den Effekt eines Kompetenz-Feedbacks auf die selbst-wahrgenommene Kompetenz, das berufsbezogene Selbstvertrauen und die Tendenz sich in der Supervision zu öffnen. *Methode:* Psychotherapeut_innen in Ausbildung (*N* = 67) wurden randomisiert einer Kompetenz-Feedback-Gruppe (KFG) oder einer Kontrollgruppe zugewiesen. In der KFG wurde wiederholt ein Feedback zu gezeigten Kompetenzen im Rahmen einer Kognitiven-Verhaltenstherapie gegeben, in der 114 Patienten mit einer depressiven Störung behandelt wurden. Das Feedback wurde durch approbierte Psychotherapeut_innen basierend auf Videoaufzeichnungen der Behandlungen gegeben. Therapeutische Kompetenzen, berufsbezogenes Selbstvertrauen und die Selbstöffnungstendenz wurden mittels Fragbogen erfasst. *Ergebnisse:* In der Feedbackbedingung kam es im Vergleich zur Kontrollbedingung zu einer signifikanten Zunahme selbstberichteter Kompetenzen. Das berufsbezogene Selbstvertrauen verbesserte sich insgesamt, unterschied sich jedoch nicht zwischen den Bedingungen. Die Tendenz zur Selbstöffnung veränderte sich nicht. *Schlussfolgerungen:* Spezifische Trainingsstrategien erscheinen notwendig, um spezifische Trainingsziele zu erreichen.

Schlüsselwörter: Kompetenz-Feedback, Selbstöffnung, Psychotherapieausbildung, berufsbezogenes Selbstvertrauen, therapeutische Kompetenz

In a large number of empirical studies, psychotherapy research has demonstrated the efficacy and effectiveness of psychological interventions (Barkham & Lampert, 2021). Psychotherapy training forms the basis for the competent

implementation of psychological interventions. However, in contrast to psychotherapy, psychotherapy training methods are rarely the subject of empirical research (e.g., Boswell et al., 2020; Callahan & Watkins, 2018). Thus, empirical studies are needed that investigate the effect of training methods on therapist competence development.

Various systematic reviews have summarized empirical evidence on psychotherapy training (e.g., Beidas & Kendall, 2010; Frank, Becker-Haimes, & Kendall, 2020; Rakovshik & McManus, 2010). Thereby, various training methods, either alone (e.g., workshops, supervision, feedback) or in combination, have been considered. Altogether, a positive effect of training methods has been found. Training through workshops seems superior to therapist self-study via treatment manuals. Actively training therapists with respect to the content seems important for the improvement of therapist behavior. Longer and more intensive training was associated with better training outcomes. However, previous research on psychotherapy training is limited by methodological issues, because many studies are uncontrolled without a control group or they use nonstandardized measures (Rakovshik & McManus, 2010).

Little is known about the efficacy of specific training strategies because of the aforementioned methodological reasons (e.g., lack of a control group). However, some training methods seem to be more promising than others. Training methods that support active learning (e.g., modeling, role-plays, feedback) seem to be more effective than passive learning strategies (e.g., reading a manual; Beidas & Kendall, 2010). Feedback to the therapist thus seems an especially important strategy, and is often considered one of the most important learning strategies in psychotherapy training (Knox & Hill, 2021).

Feedback regarding therapist competence in a randomized controlled trial demonstrated its efficacy in improving therapist competence with respect to conducting cognitive behavioral therapy (CBT; Weck et al., 2021). In this study, 67 therapists in training treated 114 patients who had a diagnosis of major depression. In total, 34 trainees were randomized to the competence feedback group (CFG) and 33 to a control group (CG) in which no competence feedback was given. In the CFG, trainees received written feedback from independent judges about their competencies in conducting CBT, based on videotapes at five treatment times (Sessions 1, 5, 9, 13, and 17). The competence feedback was standardized by giving feedback on the items of the Cognitive Therapy Scale (CTS; Young & Beck, 1980), for example: pacing and efficient use of time, selecting appropriate strategies, reviewing homework. Trainees in the CFG demonstrated a significantly higher level of competence in conducting CBT than trainees in CG. Thus, competence feedback proved to be an effective strategy for the improvement of therapist competence in conducting CBT. However, the competence feedback had no significant effect on patients' depressive symptoms.

The study by Weck et al. (2021) focused on patients' outcome and on competencies in conducting a specific treatment evaluated by independent raters. The perspective of the therapists themselves was not the subject of the study. For the evaluation of training methods, multiple perspectives seem reasonable. Previous investigations show that competence evaluations from independent raters and therapist's self-evaluations do not correspond significantly to one another ($r = -.14$; Weck et al., 2015). It is difficult to decide which perspective is the most important for evaluating a training method. Ratings by independent raters, which were generally considered to be the most objective measures, explain only 3% of the variance in therapy outcome (Power et al., 2022). Moreover, the level of training of therapists was found not to be associated with therapy outcome (e.g., Erekson et al., 2017). Therefore, training methods should be assessed from various perspectives and measures, in order to obtain a comprehensive evaluation of a given training method. Thereby, the perspective of the trained therapist and the self-perceived training effects seem particularly important in view of the acceptance and the dissemination of a particular training method.

In a brief qualitative analysis, 11 interviewed trainees who received competence feedback, reported positive effects of the feedback regarding their therapeutic development (Kaufmann et al., 2017). However, the study considered only a small sample of 11 trainees, based on qualitative data, and did not include comparisons between the CFG and the CG on standardized self-report measures. For a systematic investigation of the therapist perspective, the standardized estimation of one's own competencies in conducting CBT in the CFG and the CG is required.

Aside from the self-evaluation of therapeutic competencies, other aspects of therapist development should be considered. Therapists' professional self-confidence (Larson & Daniels, 1998) regarding one's own therapeutic work seems to be one relevant aspect of therapist development. Professional self-confidence is based on Bandura's concept of self-efficacy (Bandura, 1982). In general, perceived self-efficacy explains whether people perform or do not perform in a given situation. Only when the perceived self-efficacy is sufficient do they take action. In psychotherapy, professional self-confidence means that a therapist is confident in using therapeutic interventions and methods in an effective manner (Larson & Daniels, 1998). Previous research has demonstrated that personal (or online) training courses have a positive effect on therapist professional self-confidence (e.g., Dimeff et al.,

2009). Feedback might be an effective way to improve this self-confidence. Feedback to the therapist aims at further skills development and also highlights existing therapeutic competencies and overall positive therapist development. Therefore, feedback regarding one's own therapeutic work should also have a positive effect on a therapist's own evaluation of competence as well as professional self-confidence.

In clinical supervision, effective feedback is only possible when the supervisor has realistic insight into the therapeutic processes. Therefore, using audio- or videotapes is a feature of effective supervision (Milne et al., 2010). Only when the supervisor receives a realistic view of the given treatment is the supervisor able to provide adequate and helpful feedback. Thus, the effectiveness of supervision is at risk when supervisees fail to disclose aspects of their own therapeutic work (Yourman, 2003). However, in clinical practice, nondisclosure was frequently reported (e.g., Reichelt et al., 2009). Accordingly, trainee anxieties were found to be an important reason for nondisclosure (Jakob et al., 2014). Regular feedback that is based on videotapes can be considered to have a positive effect on nondisclosure. On the basis of videotapes, the beholder receives naturalistic insight into the therapeutic process and the trainee is not able to nondisclose. When video-based feedback to the trainee is constructive, this could be a positive experience for the trainee and could thus reduce anxieties and tendencies to nondisclosure. We consider professional self-confidence and nondisclosure as important processes in psychotherapy training. Regular feedback can be assumed to influence those processes positively. Therefore, we investigated these processes in the current article. This focus on the perspective of the therapist supplements our main study (Weck et al., 2021), which concentrates on patient outcome and a rater perspective of the trainees.

The effects of competence feedback on trainees' self-evaluation of competencies, professional self-confidence, and tendency toward self-disclosure in supervision were investigated. We expected a significantly greater improvement in trainees' self-evaluated competencies, a significantly higher improvement in professional self-confidence, and a significant increase in self-disclosure in the CFG compared to the CG.

Method

The current study is a re-analysis, and supplements data from a study that investigated the effect of competence feedback on trainees' competence and patient outcomes (Weck et al., 2021). The study was registered with www. ClinicalTrails.gov (NCT02479594), and the study protocol was approved by the Institutional Review Board of the University of Potsdam (No. 31/2016). Witten informed consent was given by the trainees. In the current study, trainees' self-evaluation of competence, professional self-confidence, and self-disclosure was investigated. The study was conducted between August 2015 and April 2020 at the CBT training center and outpatient unit at the University of Mainz.

The inclusion criteria for trainees were (a) a master's degree in psychology, (b) to have been in psychotherapy training (CBT) for at least 12 months, (c) fluency and literacy in German, and (d) informed consent.

Participants

Overall, 67 trainees participated in the current study. The mean age of the trainees was 29.25 (SD = 3.97; range 25–49) years, 57 (85.07%) were female, and 10 (14.93%) were male. Trainees had a master's degree in clinical psychology and were undergoing training in CBT (i.e., 3-year full-time training course involving 4,200 h, including an internship in a psychiatric clinic, workshops, treating patients, supervision, and self-reflection). Trainees participated in a 16-h training course on the treatment of patients with major depression. At the beginning of their participation, trainees had a mean of 2.50 (SD = 0.92) years of clinical experience, 26.00 (SD = 29.82) sessions of supervision, and 102.75 h (SD = 25.73) of self-reflection.

Measures

Cognitive Therapy Scale Self (CTS-Self)

The CTS (Young & Beck, 1980; German version: Weck et al., 2010) was used for the trainees' self-evaluation of therapeutic competence in conducting CBT (CTS-self). The CTS-self included 14 items that evaluate specific therapeutic competencies that are relevant in CBT: (1) agenda setting, (2) dealing with problems/questions/objections, (3) clarity of communication, (4) pacing and efficient use of time, (5) interpersonal effectiveness, (6) resource activation, (7) reviewing previously set homework, (8) using feedback and summaries, (9) guided discovery, (10) focusing on central cognitions and behavior, (11) rationale, (12) selecting appropriate strategies, (13) appropriate implementation of techniques, and (14) assigning homework. The response format of the CTS-Self ranges from 0 to 6 (0 = *poor*, 1 = *barely adequate*, 2 = *mediocre*, 3 = *satisfactory*, 4 = *good*, 5 = *very good*, 6 = *excellent*). For a comparison of self-report measures and ratings of independent raters, we also use the ratings of the CTS of the

study by Weck et al. (2021) at Sessions 1, $ICC_{(1,2)}$ = .74, and 17, $ICC_{(1,2)}$ = .71.

Supervisee Levels Questionnaire (SLQ-R)

The SLQ-R is a self-report measure assessing different aspects of the level of development of psychotherapists in training (McNeil et al., 1992; German version: Junga, Witthöft, & Weck, 2019). Factorial analyses of the SLQ-R (Junga et al., 2019) have revealed two factors of the SLQ-R, namely, *professional self-confidence* (14 items; example item: "I find I am able to empathize with my clients' feeling states but still help them focus on problem resolutions") and *professional insecurity* (11 items; example item: "Sometimes I question how suited I am to be a counselor/therapist"). The SLQ-R has a 7-point rating scale format, ranging from 1 (*never*) to 7 (*always*).

Counseling Self-Estimate Inventory (COSE)

The COSE is a 37-item self-report questionnaire assessing therapist confidence (also self-efficacy) in using different therapeutic competencies (Larson et al., 1992). The COSE includes five subscales: microskills (12 items; example item: "I am confident that the wording of my interpretation and confrontation responses will be clear and easy to understand"), process (19 items; example item: "I am worried that my interpretation and confrontation responses may not over time assist the client to be more specific in defining and clarifying the problem"), difficult client behaviors (7 items; example item: "I do not feel I possess a large enough repertoire of techniques to deal with the different problems my client may present"), cultural competence (4 items; example item: "I will be an effective counselor with clients of a different social class"), and awareness of values (4 items; example item: "I am likely to impose my values on the client during the interview"). In addition, the total score of all 37 items can be calculated, reflecting the therapist's general confidence in using those therapeutic competencies. The COSE has a 6-point rating scale format, ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). We translated the COSE into German, had it back-translated into English by a native-speaking clinical psychologist and had a committee review, following the guidelines of Guillemin and colleagues (1993). The two versions were compared, and minor wording adjustments were made.

Supervisory Questionnaire (SQ)

The SQ is a self-report instrument assessing different aspects of self-disclosure or nondisclosure of psychotherapy trainees/supervisees (Yourman & Farber, 1996; German version: Jakob et al., 2014). Factorial analyses of the SQ (Jakob et al., 2014) revealed a patient factor (example item: "I describe honestly, interactions with patients that my supervisor might disapprove") and a supervisor factor (example item: "I am comfortable openly disagreeing with my supervisor") with five items each. In addition, a total score can be computed (10 items). The SQ has a 6-point rating scale format, ranging from 1 (*never*) to 6 (*always*). The SQ was considered, because disclosing and openly discussing all aspects of a psychotherapeutic treatment with a supervisor can be regarded as an important aspect of therapist competence.

Study Design and Competence Feedback

Trainees were randomly assigned to CFG (*n* = 34) or CG (*n* = 33). The competence feedback was given during the CBT (Hautzinger, 2013) for the 114 patients with depressive disorders (*n* = 63 treated in CFG and *n* = 51 treated in CG; for more detail, see Weck et al., 2021). The treatment manual includes modules addressing behavior activation (e.g., observation of patients' behavior, increase in positive activations), cognitive strategies (e.g., observation of dysfunctional cognitions, cognitive restructuring), and strategies for improving social competence (information regarding social skills, training of social competences). CBT was supplemented in both conditions by clinical supervision, conducted by licensed and experienced supervisors (every fourth treatment session).

In CFG, trainees additionally received five written feedback reports after Sessions 1, 5, 9, 13, and 17. The feedback was based on video tapes and evaluated by licensed psychotherapists on the basis of the CTS. The competence feedback included qualitative and quantitative feedback, both based on the 14 items of the CTS. The qualitative feedback included suggestions for improvements with respect to the dimensions of the CTS. The qualitative feedback is intended to be based on observable therapeutic behaviors, be formulated concretely, include specific information, and be formulated respectfully. For example, qualitative feedback regarding the first item of the CTS (i.e., pacing and efficient use of time) could be: "Overall the time is used efficiently, but unproductive discussions should be broken off earlier (e.g., the patients' lament about her mother). Then it would be enough time to discuss the homework task for the next therapy session appropriately, without running the session over time.") The quantitative feedback was based on the CTS scores. For a score of > 4, a check mark (√) indicated a high level of competence for this item. For a score of ≤ 4, an exclamation mark (!) indicated that improvements on this item are possible. Additionally, from the second feedback onward, a smiley (☺) was given for every point of improvement on the CTS items, indicating an improvement on that item. Trainees treated one to three patients

(21 trainees treated one patient, 45 treated two patients, and one treated three patients) and received, for every patient, five feedback reports (directly after Session 1, 5, 9, 13, and 17). In terms of means, trainees in the CFG received $M = 8.44$ ($SD = 2.31$; range 4–13) feedback reports during their participation in the study.

Data Analysis

The reliability (internal consistency) of the measures used was evaluated with Cronbach's α. In the first step, we analyzed whether there were differences between both groups (CFG vs. CG) in order to ensure that the randomization had worked. Thereby, differences between means were evaluated with analysis of variance for dimensional data, and chi-square tests (Fisher's exact test, respectively) were used for categorical data.

In the second step, we analyzed correlations between the different trainees' self-evaluation measures (i.e., CTS-self, SLQ-R, COSE, and SQ) and trainees' variables (demographic and training experiences). Therapy relationships between variables were analyzed with Pearson's correlation.

In a third step, we analyzed whether there were differences between both groups (CFG vs. CG) from pre-feedback training to post-feedback training, in order to identify effects of the training methods (feedback vs. no feedback). Therefore, a repeated multivariate analysis of variance (MANOVA) was conducted to identify any general effects of the training methods on the measures. Next, repeated analysis of variance with two groups (CFG vs. CT) and two iterations (pre-feedback training and post-feedback training) were conducted. Altogether, 67 trainees participated in the current study and filled out the pre-measures. Because some patients ($n = 15$) dropped out during treatment, only 62 of the trainees completed the post-measurement.

Results

Preliminary Analyses at Pre-Feedback Training

Table 1 presents the internal consistencies (Cronbach's α) of all measures and the amount and level of trainees' training at pre-feedback. The training experiences of trainees did not differ significantly between the CFG and CG at pre-treatment: years of CBT training, $F_{(1,66)} = 0.11$; $p = .75$; $\eta_p^2 < .01$, sessions of supervision, $F_{(1,66)} = 0.15$; $p = .70$; $\eta_p^2 < .01$, or session of self-reflection, $F_{(1,66)} = 2.10$;

$p = .15$; $\eta_p^2 = .03$. No significant differences were found between the CFG and CG for trainees' self-evaluation: COSE, $F_{(1,66)} = 0.35$; $p = .56$; $\eta_p^2 = .01$, SLQ-R, $F_{(1,66)} = 2.20$; $p = .14$; $\eta_p^2 = .03$, SQ, $F_{(1,66)} = 0.51$; $p = .48$; $\eta_p^2 = .01$, or CTS-Self, $F_{(1,66)} = 0.90$; $p = .35$; $\eta_p^2 = .01$. No significant differences between trainees randomized to the CFG and CG were found for sex, Fisher's exact test; $p = .19$, or age, $F_{(1,66)} = 1.98$; $p = .17$; $\eta_p^2 = .03$. The dates of trainees' participation did not correlate significantly with the measures of training experiences at post-feedback training (ps > .20).

Relationships Between Training Experiences and Competence Measures at Pre-Feedback Training

Table 2 presents the correlation coefficients between the variables of trainees' age, training experience, trainees' self-evaluated competencies (CTS-Self), professional self-confidence (SLQ-R and COSE), and self-disclosure (SQ) at the beginning of the study. Most of the correlation coefficients between training experiences and trainees' self-evaluation (i.e., CTS-Self, SLQ-R, COSE, and SQ) were not significant or only of small magnitude ($r = .01$–.38). Correlation coefficients between the different self-evaluation measures were all significant and moderate to large in magnitude ($r = .30$–.73).

Relationships Between Ratings of Independent Judges and Trainees' Self-Evaluation of Competence

Table 3 presents the correlation coefficients between the competence ratings of independent raters and trainees' self-evaluated competencies (CTS-Self), self-confidence (SLQ-R and COSE), and self-disclosure (SQ). The only significant correlation coefficient was found for the CTS-Self at post-feedback training, and the CTS rating of independent raters at Session 17 ($r = .35$; $p = .007$). In CFG, the correlation coefficient (CTS-Self at post-feedback training and the CTS rating of independent raters at Session 17) was $r = .33$ ($p = .08$) and $r = .23$ ($p = .22$) in the CG.

Trainees' Self-Evaluation During Feedback-Training for CFG and CG

The duration in months of feedback training was $M = 11.42$ ($SD = 4.43$) in the CG and $M = 10.13$ ($SD = 3.14$) in the CFG and did not differ significantly from each other ($F_{(1,60)} = 1.75$; $p = .19$; $\eta_p^2 = .03$). Table 4 presents the trainees' self-evaluated competencies (CTS-Self), profes-

Table 1. Internal consistencies (Cronbach's α) and trainees' amount and level of training and therapists' self-evaluated competencies (CTS-Self), self-confidence (SLQ-R and COSE), and self-disclosure (SQ) at pre-feedback training (N = 67)

	Cronbach's α	M (SD)	Range
Months in training		29.95 (11.09)	14 – 76
Sessions of supervision		26.00 (29.82)	1 – 132
Hours of self-reflection		103.34 (25.90)	50 – 150
CTS-Self (mean score)	.71	3.50 (0.55)	2.21 – 4.79
SLQ-R (mean score)	.88	5.16 (0.57)	3.72 – 6.32
Professional self-confidence	.83	5.16 (0.57)	4.07 – 6.43
Professional insecurity	.80	5.17 (0.68)	3.27 – 6.27
COSE (mean score)	.90	4.18 (0.14)	3.19 – 5.30
Microskills	.83	4.31 (0.42)	3.17 – 5.25
Process	.84	3.97 (0.69)	2.30 – 5.70
Difficult client behaviors	.66	3.78 (0.56)	2.00 – 5.00
Cultural competence	.76	4.75 (0.65)	3.50 – 6.00
SQ (mean score)	.63	4.17 (0.48)	2.90 – 5.10
Patient factor	.57	4.58 (0.59)	2.80 – 6.00
Supervisor factor	.46	3.76 (0.59)	2.40 – 5.40

Note. COSE = Counseling Self-Estimate Inventory; CTS-Self = Cognitive Therapy Scale (self-assessment); SLQ-R = Supervisee Levels Questionnaire; SQ = Supervisory Questionnaire.

Table 2. Correlation matrix of trainees' amount of training, trainees' self-evaluated competencies (CTS-Self), self-confidence (SLQ-R and COSE), and self-disclosure (SQ) at pre-feedback training (N = 67)

Measures / characteristic	1.	2.	3.	4.	5.	6.	7.	8.
1. Age	–							
2. Months in training	.48**	–						
3. Supervision (sessions)	.29*	.53**	–					
4. self-reflection (h)	.22†	.52**	.31*	–				
5. CTS-Self	-.04	.12	-.07	.18	–			
6. SLQ-R	.02	.20	.25*	.16	.53**	–		
7. COSE	.07	.20	.15*	.22†	.52**	.73**	–	
8. SQ	.18	.38**	.25*	.27*	.30*	.46**	.50**	–

Note. COSE = Counseling Self-Estimate Inventory; CTS-Self = Cognitive Therapy Scale (self-assessment); SLQ-R = Supervisee Levels Questionnaire; SQ = Supervisory Questionnaire. ** p < .01; * p < .05.

sional self-confidence (SLQ-R and COSE), and self-disclosure (SQ) at pre- and post-feedback training for CFG and CG. Repeated MANOVA, which included all measures (CTS-Self, SLQ-R, COSE, and SQ) at pre-feedback training and post-feedback training, revealed a significant main effect of time, $F_{(4,57)}$ = 6.89; p < .001; η_p^2 = .33, no significant main effect of group, $F_{(4,57)}$ = 1.00; p = .42; η_p^2 = .07, and a significant interaction of time × group, $F_{(4,57)}$ = 3.29; p = .02; η_p^2 = .19. Only the CTS-Self findings conformed to our hypothesis. For the CTS-Self (see Figure 1), there was a significant main effect of time, $F_{(1,60)}$ = 16.25; p < .001; η_p^2 = .21, no significant effect of group, $F_{(1,60)}$ = 0.37; p = .54; η_p^2 = .01, but a significant interaction of time × group, $F_{(1,60)}$ = 11.90; p = .001;

η_p^2 = .17, suggesting that trainees in the CFG improved more in self-evaluated competencies than trainees in the CG. For the SLQ-R, there was a significant main effect of time, $F_{(1,60)}$ = 19.15; p < .001; η_p^2 = .24, no significant main effect of group, $F_{(1,60)}$ = 1.52; p = .22; η_p^2 = .03, and no significant time × group interaction, $F_{(1,60)}$ = 3.03; p = .09; η_p^2 = .05. For the COSE, there was a significant main effect of time, $F_{(1,60)}$ = 7.77; p = .007; η_p^2 = .12, no significant main effect of group, $F_{(1,60)}$ = 0.36; p = .55; η_p^2 = .01, or time × group interaction, $F_{(1,60)}$ = 1.14; p = .29; η_p^2 = .02. For the SQ, there was no significant time effect, $F_{(1,60)}$ = 3.31; p = .07; η_p^2 = .05, no significant main effect of group, $F_{(1,60)}$ = 0.92; p = .34; η_p^2 = .02, or time × group interaction, $F_{(1,60)}$ < 0.01; p = .97; η_p^2 < .01.

Table 3. Correlation between ratings of independent judges and trainees' self-evaluated competencies (CTS-Self), self-confidence (SLQ-R and COSE), and self-disclosure (SQ) at pre- and post-training (*N* = 62)

	CTS (evaluated by independent judges)	
	Session 1	Session 17
CTS-Self (mean score)		
pre	.04	.02
post	.12	**.35***
SLQ-R (mean score)		
pre	-.16	-.08
post	-.08	-.08
COSE (mean score)		
pre	-.11	-.16
post	-.07	.03
SQ (mean score)		
pre	-.09	-.23
post	.06	-.24

Note. COSE = Counseling Self-Estimate Inventory; CTS = Cognitive Therapy Scale; SLQ-R = Supervisee Levels Questionnaire; SQ = Supervisory Questionnaire.
* *p* < .001.

Table 4. Trainees' self-evaluated competencies (CTS-Self), self-confidence (SLQ-R and COSE), and self-disclosure (SQ) at pre- and post-training (*N* = 62)

	Competence feedback group		Control group	
	pre	post	pre	post
CTS-self (mean score)	3.45 (0.61)	3.91 (0.50)	3.59 (0.47)	3.62 (0.51)
SLQ-R (mean score)	5.02 (0.57)	5.36 (0.55)	5.27 (0.53)	5.41 (0.42)
Professional self-confidence	5.06 (0.55)	5.38 (0.54)	5.22 (0.58)	5.42 (0.43)
Professional insecurity	4.97 (0.74)	5.33 (0.67)	5.33 (0.53)	5.40 (0.56)
COSE (mean score)	4.13 (0.41)	4.33 (0.32)	4.23 (0.44)	4.32 (0.34)
Microskills	4.32 (0.39)	4.54 (0.39)	4.29 (0.44)	4.39 (0.37)
Process	3.89 (0.70)	4.17 (0.52)	4.05 (0.65)	4.21 (0.61)
Difficult client behaviors	3.69 (0.56)	3.96 (0.51)	3.91 (0.47)	4.10 (0.43)
Cultural competence	4.66 (0.66)	4.76 (0.64)	4.87 (0.62)	4.76 (0.64)
SQ (mean score)	4.09 (5.11)	4.21 (5.72)	4.21 (4.33)	4.32 (5.24)
Patient factor	4.59 (0.66)	4.63 (0.70)	4.55 (0.56)	4.63 (0.70)
Supervisor factor	3.60 (0.61)	3.78 (0.66)	3.87 (0.70)	3.98 (0.63)

Note. COSE = Counseling Self-Estimate Inventory; CTS = Cognitive Therapy Scale; SLQ-R = Supervisee Levels Questionnaire; SQ = Supervisory Questionnaire.

Discussion

In the current study, we investigated the effect of repeated competence feedback on trainees' self-evaluated competencies, professional self-confidence, and self-disclosure in supervision. Trainees reported an improvement in all measures apart from self-disclosure during the training period. However, in contrast to our hypothesis, only trainees' self-evaluated competencies improved more in the CFG than in the CG.

The results of our study show that the competence feedback had a very specific effect on trainees' self-reported development. Only competencies that were specifically addressed by the feedback (i.e., aspects included in the items of the CTS-Self) improved more strongly in the CFG than in the CG. This finding is in concordance with the main study (Weck et al., 2021), which found an improvement of the CTS evaluated by independent raters only in the CFG and not in the CG. Thus, an improvement in therapeutic competencies can be observed through two different perspectives, which validate the effect of the competence feedback on therapist competence. This finding also shows that the competence feedback has a less general effect on trainee development than expected.
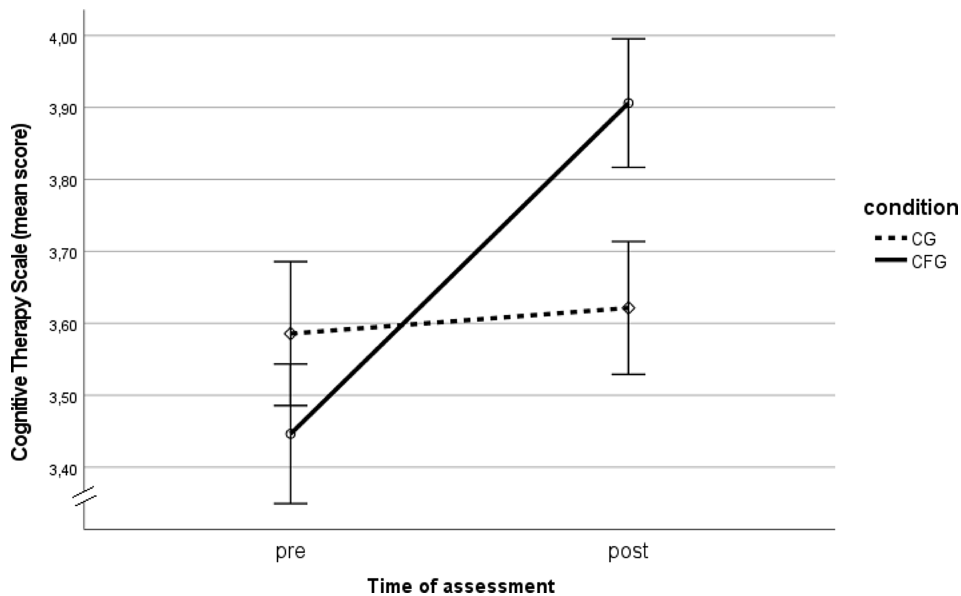
Figure 1. Therapist competence (measured through the Cognitive Therapy Scale – therapists' self-evaluation) at pre- and post-feedback training for the competence feedback group (CFG) and the control group (CG); error bars represent one standard error.

There is an interesting parallel to the debate on specific and nonspecific factors in psychotherapy research (e.g., Marcus et al., 2014). For psychological treatments, there is an ongoing discussion on whether specific interventions (e.g., cognitive restructuring) or common factors (e.g., working alliance) are causal for patients' outcome. For the field of psychotherapy training, our results suggest that specific training methods (i.e., a specific competence feedback) have a specific effect on specific trainee performances. One the other hand, changes in trainees' self-confidence occurred in general and might therefore be the result of nonspecific training methods (e.g., supervision in general). For the study of psychotherapy training, it seems reasonable to indicate which training methods have general effects, and which have specific effects on trainee behaviors and attitudes. This differentiation would be important for the development of tailored training approaches and a further development of psychotherapy training approaches.

The improvement in trainees regarding professional self-confidence was found for both training conditions. This effect on self-confidence seems to be less a consequence of the competence feedback and more of a general effect, even though there was a trend toward an interaction for one of the measures, namely, the SLQ-R. This effect can be attributed to the increase in practical experiences while practicing CBT, and the regular supervision (every fourth treatment session). This finding is in line with other studies that found generally positive effects of psychotherapy training (e.g., Frank et al., 2020; Rakovshik & McManus, 2010).

Self-disclosure (i.e., SQ) did not change significantly during the training period. One methodological reason for this finding might be that the reliability of the SQ with a Cronbach's α of .63 was lower than the other measures in the current study. In the original study, the SQ reached a Cronbach's α of .81 (Jakob et al., 2014). Therefore, the findings regarding the SQ should be interpreted with caution. A further reason for this finding might be that trainees who were willing to participate in the current study had a relatively low level of nondisclosure in supervision. However, the mean scores of the SQ were comparable to general therapist samples ($M = 4.68$; $SD = 7.40$; Jakob et al., 2014). A tendency toward nondisclosure could constitute a barrier to the effective use of the given supervision. Earlier studies show that nondisclosure is associated with therapist anxiety (Jakob et al., 2014). Therefore, training interventions that address therapist anxiety more specifically might be necessary for a greater improvement of therapists' self-disclosure in supervision.

At the beginning of the study, only low correlation coefficients were found between trainees' training experiences and measures of therapeutic competencies. This important finding contradicts the assumption that training experiences generally have a positive effect on therapeutic competencies. However, the finding concurs with empirical investigations that show that clinical experiences and the level of psychotherapy training are less relevant for psychotherapy success than generally assumed (Erekson et al. 2017; Germer et al., 2022). Potentially, participation in our training study itself had a generally positive effect on trainees' development in both conditions. It can be assumed that trainees in the current study were especially motivated to improve their therapeutic competencies. This was also expressed by trainees who participated in the current study and were asked about this in a qual-

itative interview (Kaufmann et al., 2017). Moreover, the response to competence, self-confidence, and self-disclosure questionnaires might have led the trainees to more intense reflection on their own therapeutic work, and might lead them to greater therapeutic development. Future studies should take this hypothesis into consideration by investigating the effect of self-reflection questionnaires on therapeutic development.

As in previous studies (Weck et al., 2015), we found for the competence assessment few concordances between the perspective of independent raters and the self-rating of trainees. The only exception was a moderate relationship between the CTS-Self and the CTS (evaluated by independent raters) at the end of the competence feedback training. It is interesting that this relationship was not evident at the beginning of the training but at the end. Possibly, the training leads to a better competence self-evaluation (in particular in CFG). However, differences between groups are difficult to interpret, because correlation coefficients in the smaller subgroups (CFG and CG) were no longer significant at a level of $p < .05$. Future studies should investigate the hypotheses of whether competence feedback is able to improve the concordance between competence evaluation of independent raters and self-report.

Limitations

Also, limitations of our study should be considered. First, our study is limited to CBT for depression. Therefore, the results cannot be noncritically applied to other disorders or other treatment approaches (e.g., interpersonal therapy). For example, competence feedback might be less relevant for more insight-oriented therapies than for CBT. Therefore, competence feedback should also be investigated in other therapeutic settings.

Second, we focused on specific therapist characteristics (i.e., self-perceived competence, professional self-confidence, and self-disclosure). Other characteristics (e.g., therapist brooding) might also be of interest, which should be considered in future studies.

Third, in the current study, only 67 trainees participated. Therefore, the statistical power is limited in order to identify smaller time × group interaction effects. While statistical power was good ($1-\beta = .98$), with respect to identifying a medium interaction effect ($d = 0.50$), the power was not satisfactory ($1-\beta = .36$) as a means of identifying a small interaction effect ($d = 0.30$) for $\alpha = .05$ (Faul et al., 2007).

Fourth, the focus of the current study was the trainee perspective. However, this focus on self-report measure can also be seen as a further limitation. Therefore, it can be questioned whether therapist competence and self-confidence also improved by including other perspectives. We know that competence evaluations by means of drawing on different perspectives are often not at all, or only minimally, correlated (Weck et al., 2015). However, for therapist competence (measured with the CTS), we know from the main study that there is an improvement in therapeutic competencies also in terms of the perspective of independent raters (see Weck et al., 2021). Therefore, the current study can be seen as important supplement to the previous work in this context.

Conclusion

It can be concluded that the training in our study generally led to positive development in psychotherapy trainees, in particular regarding self-confidence. This effect was independent of whether feedback was given or not. By contrast, the competence feedback had a specific effect on self-reported therapeutic competencies, which was only achieved through the competence feedback and not through regular clinical practice and supervision. Because of the randomized controlled design, we have strong evidence that the competence feedback can be considered as causal for the improvement in self-perceived competencies of the trainees. This study therefore shows that specific training methods have a specific effect on trainees' abilities. This also emphasizes that it is important and indeed necessary to develop specific training modules for specific training objectives.

A precondition for competence feedback is a close observation of trainees' behavior in psychotherapy. Therefore, trust in the trainers is necessary, as well as an atmosphere in which it is possible to make and discuss failures. These aspects are important for trainees to disclose relevant information and for the trainers/supervisors to provide useful feedback regarding trainees' competence. Aside from competence feedback, live supervision also allows the supervisor to give specific feedback regarding therapist behavior and competence. The evidence of live supervision has also been demonstrated in several studies (e.g., Maaß et al., 2022). A direct comparison of competence feedback and live supervision in a randomized controlled trial would also be an interesting topic for future research.

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