

Cognitive Therapy Supervision — a Pilot Study

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Abstract

Objective: To investigate the effect of cognitive therapy supervision on the enhancement of supervisee competence and improvement in the clinical outcome of patients under cognitive therapy conducted by the supervisee.

Patients and Methods: This pilot study included 1 supervisor, 5 supervisees, and 8 patients. Trainee supervisees provided cognitive therapy to the patients individually during audiotaped sessions. After reviewing the tape-recorded therapy sessions, the supervisor conducted supervisory sessions with the supervisees. Supervisees' competence was measured by the Cognitive Therapy Rating Scale, while patients' overall symptom severity was measured using the Beck Depression Inventory-II, Beck Anxiety Inventory, and Beck Hopelessness Scale.

Results: A significant improvement was observed in supervisee competence with progression of supervision. There was a parallel significant improvement in the clinical outcome of the patients under therapy conducted by supervisees.

Conclusion: This pilot study highlights the importance of supervision in the improvement of supervisee competence and hence clinical outcome.

Key words: Cognitive therapy, Psychotherapy, Teaching, Treatment outcome

Introduction

Clinical supervision is an intensive relationship focussed on interpersonal interactions in which one person, the supervisor, facilitates the development of therapeutic competence in the supervisee.¹ The purpose of supervision is to facilitate experiential learning (formulating case conceptualisation, technical expertise, and relationship qualities), thereby establishing the fitness of the supervisee to practice (accreditation) while maintaining professional competence standards and promoting professional development.² The fundamental purpose is to guide the supervisee in order that he/she may provide safe and effective therapy to patients.³ Supervision, therefore, is exceptionally important in professional practice. Despite the importance of supervision, there is a dearth of research on the impact of clinical supervision on patient outcome.⁴

Cognitive therapy is an effective psychological treatment for a variety of disorders. Outcome studies have demonstrated

its efficacy for the treatment of depression,⁵ panic disorder,^{6,7} generalised anxiety disorder,⁸ social phobia,^{9,10} substance abuse,¹¹ post-traumatic stress disorder,¹² and eating disorders.^{13,14} Recent studies have confirmed its efficacy in the treatment of other difficult psychiatric problems, including treatment-resistant psychosis¹⁵ and personality disorders.¹⁶ Cognitive therapy places primary emphasis on cognitive processes, including the identification and modification of core beliefs, conditional assumptions, and automatic thoughts.¹⁷ A basic assumption is that the manner in which individuals process information influences their emotions, behaviour, and physiology in a predictable way. Cognitive formulations have been available for many major psychiatric disorders. Various cognitive and behavioural strategies have been developed specifically for different psychiatric disorders. This highlights the importance of cognitive therapy supervision in ensuring therapist competence. There is increasing data to support the notion that the degree of adherence of therapists to cognitive therapy¹⁸ and cognitive therapist competence have a long-term impact on clinical outcomes in case of neurotic disorders¹⁹ and prevention of self-harm.²⁰ More critically, Tang and DeRubeis have demonstrated that in a therapy course, the session with the lowest rating with regard to therapist competence may be the most robust predictor of clinical outcome.²¹

This was a single-centre, non-randomised, longitudinal study that investigated the impact of cognitive therapy supervision on clinical outcome. This study was conducted as a service research in a realistic clinical setting in the psychiatric unit of a general hospital in Hong Kong.

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Patients and Methods

Supervisor

The author, who is a 38-year-old Chinese male medical doctor served as the cognitive therapy supervisor. He has 15 years of clinical experience in the diagnosis and management of psychiatric disorders and 10 years of experience in conducting cognitive therapy for various serious psychiatric disorders, including depression, anxiety disorders, obsessive-compulsive disorder, psychosis, and personality disorders. He is a certified member of the Academy of Cognitive Therapy. During the past 3 years, he has been supervising trainee therapists in cognitive therapy. He received training in supervision via consultation with internationally renowned cognitive experts in the United States and received continued training through attendance of workshops in cognitive therapy supervision and registration in short courses overseas. He was also nominated to be one of the psychotherapy supervisors in the psychotherapy training service for psychiatric trainees in preparation for the Fellowship examination of the Hong Kong College of Psychiatrists. Since there was no mandatory requirement for psychotherapy training before taking the Fellowship examinations in Hong Kong, it was the trainee's own initiative to make provisions for patients to receive cognitive therapy while, at the same time, receiving cognitive therapy supervision.

Supervisees

The supervisees were local psychiatric trainees under training for the Fellowship examination of the Hong Kong College of Psychiatrists. From 2002 to 2004, they were rotated to the author's team for training in general adult psychiatry for a period of 6 to 12 months. There were 5 trainees who received cognitive therapy supervision, including 3 male and 2 female qualified Chinese medical doctors who had received 5 years of medical education in Hong Kong and were working as residents in psychiatric units of the Hong Kong Hospital Authority. They had been under psychiatric training for an average of 1.3 years (range, 1-3 years). The supervisees selected the sample patients for supervision and training purposes.

Patients

There were 4 male and 4 female patients ranging in age from 26 to 56 years (mean, 46.4). The diagnoses of the patients were recurrent depressive disorder ($n = 5$), social phobia ($n = 1$), hypochondriacal disorder ($n = 2$), obsessive-compulsive personality disorder ($n = 1$), borderline personality disorder ($n = 2$), and other specific personality disorder, narcissistic personality disorder ($n = 1$). All patients with personality disorder presented with another psychiatric diagnosis (recurrent depressive disorder).

Supervisory Method

Cognitive therapy supervision was based on the model proposed by Liese and Beck.²² According to this model, cognitive therapy supervision has at least three important purposes: (a) to teach cognitive theory and techniques, (b)

to correct misconceptions of cognitive therapy, and (c) to reduce the likelihood of therapist performance drift in therapy sessions. The author typically arranged for individual supervision sessions on a weekly basis. This schedule enabled supervisees to apply the knowledge and techniques learnt in the previous week. Each trainee provided cognitive therapy to each patient individually. The patient in therapy was discussed in depth in each 60-minute supervisory session. For each supervisory session, the structure of supervision was very similar to a cognitive therapy session²³ and included check-in, agenda setting, bridge from previous session, review of homework, prioritisation and discussion of agenda items, assignment of new homework, capsule summaries, and therapist feedback about the session. Although the supervisory session was structured, the author implemented it in a flexible manner, in order to facilitate the supervisory relationship. An essential part of the supervision process was the audiotape recording of the therapy sessions. Tape recordings provided a reliable and accurate record of the events that occurred in a therapy session. The author would review the entire tape-recorded therapy session prior to conducting the supervision.

Assessment of Supervisee Competence

The author reviewed the tape-recorded sessions and noted the performance on each item of the Cognitive Therapy Rating Scale (CTRS)²⁴ — an 11-item scale that measures cognitive-behavioural therapist competence. The rating scale includes 6 items for 'general therapeutic skills' and 5 items for 'conceptualisation, strategy, and techniques'. Each item can be given a score ranging from 0 (poor) to 6 (excellent). The total score can therefore range from 0 to 66. An expert rater evaluates each complete audiotaped cognitive therapy session and assesses general therapeutic skills and the therapist's ability to structure the session and to intervene using the most appropriate cognitive therapy skills (conceptualisation, strategy, and techniques). The scale was found to be reliable and sensitive in a previous study.²⁵ The author, who had received training in CTRS administration from the Center for Cognitive Therapy, University of Pennsylvania, and achieved a satisfactory inter-rater reliability score, was responsible for rating all the tape-recorded therapy sessions.

To determine the change in clinical outcome with cognitive therapy progression, the CTRS results were divided into 3 stages of therapy. The first one-third of the tape-recorded sessions were pooled as the engagement (En) phase of therapy, the second one-third as the treatment (Tr) phase, and the last one-third of the sessions as the termination (Te) phase. Since the number of sessions varied between different patients, the number of sessions included in each phase differed between patients. For each phase of therapy, an average CTRS score was calculated for statistical analysis.

Assessment of Clinical Outcome

During the weekly clinical case discussions, the diagnosis of each patient was made by the supervisor based on the

clinical information provided by the supervisee and other mental health professionals (for example, progress notes from community psychiatric nurses or medical social workers). The diagnosis was based on the Tenth Revision of the International Classification of Diseases (ICD-10) classification of mental and behavioural disorders.²⁶

Each patient receiving cognitive therapy was asked to complete the following scales before attending the therapy sessions: Beck Depression Inventory (BDI), Beck Anxiety Inventory (BAI), and Beck Hopelessness Scale (BHS). BDI is a 21-item, self-administered depressive scale that measures the extent of depressive symptoms during the past 2 weeks.²⁷ Each item has a score ranging from 0 to 3; thus, the total score can range from a minimum of 0 to a maximum of 63. BHS is a forced choice true/false 20-item dichotomous scale,²⁸ in which the total score can range from a minimum of 0 to a maximum of 20. For both scales, the higher the total score, the more severe the depressive symptoms. Both scales were well validated in Hong Kong.²⁹ BAI measures the severity of anxiety in the preceding 2 weeks.³⁰ It contains 21 items that measure both the cognitive and somatic symptoms of anxiety. Each item has a score ranging from 0 to 3, giving a total score ranging from 0 to 63.

To determine the clinical advancement with cognitive therapy progression, the clinical outcome scores were segregated into 3 stages of therapy. The first one-third of the outcome scores were pooled as the En phase of therapy, the second one-third as the Tr phase, and the last one-third of the sessions as the Te phase. As the number of sessions varied between different patients, the number of sessions included in each phase differed between different patients. For each phase of therapy, an average mean score of each clinical outcome parameter was calculated for statistical analysis.

Results

Clinical Outcome

Cognitive therapy was conducted by 5 supervisees for 8 patients suffering from psychiatric disorders. Each patient underwent an average of 21.1 sessions (range, 10-32). There was a significant decrease in the mean BDI and BHS scores from the En to the Te phase of therapy (Table 1). Although the anxiety level continued to decrease from the En to the Te phase, the decrease was not statistically significant.

Table 1. Mean Beck Depression Inventory (BDI), Beck Anxiety Inventory (BAI), Beck Hopelessness Scale (BHS), and Cognitive Therapy Rating Scale (CTRS) scores from the engagement to the termination phase. (n = 8)

	Engagement phase	Treatment phase	Termination phase
BDI	35.2	19.6*	14.3*
BAI	29.0	16.3	12.7
BHS	19.4	9.7	8.3*
CTRS	24.9	46.9	49.6*

* $p < 0.05$.

Supervisee Competence

A total of 169 therapy sessions were conducted by 5 supervisees. Of these, 10 sessions could not be audiotaped due to technical problems, while 15 sessions could not be rated due to poor tape quality. Only 144 therapy sessions were rated using CTRS. As noted in Table 1, although there was an improvement in CTRS as cognitive therapy supervision progressed from the En to the Te phase, the improvement was statistically significant from the Tr to the Te phase. For a competent cognitive therapy session, a total score of 39 or above is required. For a good interview with supportive techniques, a score of up to 29 is required on the CTRS. Therefore, it is clear that by the second phase of the treatment, the supervisees were able to achieve the required competence level in conducting cognitive therapy.

Correlation Between Supervisee Competence and Clinical Outcome

A correlation matrix was performed to explore the relationship between clinical outcome parameters and supervisee competence at all 3 stages of cognitive therapy (Table 2). There was a significant correlation between the depression scores and supervisees' competence at various stages of therapy, suggesting that enhancing the competence of supervisees might lead to alleviation of depression in patients under treatment. However, considering the small sample size, this finding, although significant, should be treated with caution.

Discussion

This was the first local study on the effectiveness of cognitive therapy supervision in enhancing supervisee competence and

Table 2. Correlation matrix of Cognitive Therapy Rating Scale (CTRS) and clinical outcome.

	BAI			BDI			BHS		
	En	Tr	Te	En	Tr	Te	En	Tr	Te
CTRS-En	0.53	-0.60	-0.78*	0.47	0.17	0.196	0.51	0.24	-0.46
CTRS-Tr	0.08	0.21	0.55	-0.85*	-0.83*	-0.80*	-0.43	-0.71	-0.39
CTRS-Te	-0.16	0.53	0.51	-0.82*	-0.76*	-0.62	-0.73	-0.87	-0.16

Abbreviations: BAI = Beck Anxiety Inventory; BDI = Beck Depression Inventory; BHS = Beck Hopelessness Scale; En = engagement phase; Tr = treatment phase; Te = termination phase.

* $p < 0.05$.

patient clinical outcome. Since this study included a very selective and small sample of supervisees and patients, the conclusion must be regarded with caution. Psychotherapy supervision could enhance supervisee competence as evidenced by the gradual improvement in general therapeutic and technical skills with supervision. The results of this study were the same as the conclusion of a recent systematic review of 28 studies on the change in clinical outcome occurring between participants in a supervisory cognitive-behavioural relationship.³¹ It is encouraging to note that supervisees with less than 3 years of psychiatric experience (without professional membership qualification) could learn cognitive therapy skills under regular supervision, attaining adequate competence level by the second phase of therapy for their patients.

The positive relationship between therapist competence and clinical outcome in this study should be interpreted with caution since other prognostic factors and possible mediating factors were not included in this pilot study. However, an effect of therapist competence on clinical outcome was found in several large-scale trials.¹⁸⁻²⁰ A further large-scale trial with the inclusion of confounding factors as controls is required to address this question.

In a 2002 UK national survey of clinical supervision by accredited cognitive therapists, it was found that while most supervisors supported the Liese and Beck supervisory model,²² they seldom set agendas or performed role-plays with supervisees, and did not review audio-/videotapes of therapy sessions of supervisees.³² Special efforts were made in following the recommendations of this survey. Therefore, the result of the present study with regard to the supervisory relationship might not reflect actual supervisory practice in other supervisory dyads.

The supervisory relationship in cognitive therapy is similar to the therapeutic relationship.³³ Therefore, many adaptations in cognitive therapy for Chinese patients are applicable to the supervisory relationship.³⁴ For example, adoption of a collaborative relationship between supervisor and supervisee requires active fostering on the part of the supervisor, since supervisees are very sensitive to hierarchies in social structures and behave in ways to display and enhance this social position.³⁵ Because of this social sensitivity, supervisees seldom voice their differences in opinion or questions. The supervisor needs to be especially vigilant of supervisees' change of tone or any non-verbal behaviour indicating disagreement. Another example is the use of Socratic dialogue in a supervision session.³⁶ Supervisees are accustomed to didactic teaching; hence, Socratic questioning by the supervisor might be construed as threatening and social-evaluative behaviour. Warm-up practices such as reading assignments on cognitive-behavioural skills and cultivation of an atmosphere of 'collaborative empiricism' may reduce the anxiety of supervisees.

In fact, cognitive therapy supervision is an umbrella term that encompasses many elements, including direct coaching in the application of cognitive-behavioural techniques and the development of a cognitive formulation, learning

new knowledge through readings assigned at the end of each supervisory session, and enhancement of self-esteem through cultivation of the therapeutic relationship between supervisor and supervisee. There is no information in the literature that describes the necessary or effective components of supervision. Dismantling studies may provide further insight into this important question.

There are a number of limitations to this study. The ratio of supervisor to supervisee was 1:5. There was no control group that examined the clinical outcome in therapy in the absence of cognitive therapy supervision. In the absence of a control group, the possibility of spontaneous remission, Hawthorne effect, and the effect of medication could not be ruled out. This study was not carried out in a blinded manner; hence, assessment of clinical outcome was also likely to be biased.

It is unclear whether the beneficial effect of supervision on clinical outcome was applicable to other supervisory relationships since only one supervisor participated in the pilot study. Further, the supervisees were not recruited randomly and, in fact, represented a highly motivated group. The effect of supervision on supervisees with low motivation was not clear. The patient sample size was too small to permit powerful statistical analysis. Only self-rated instruments were used to measure clinical outcome. Additional measures such as observer-rated scales or quality of life scales would shed more light on the extent of improvement in clinical outcome. Additional measures such as supervisee satisfaction or direct assessment of therapist knowledge on cognitive therapy would provide an insight into the relationship between satisfaction, knowledge, and competence. This study does not clearly indicate whether supervision enhances supervisee competence and improves clinical outcome, given the presence of numerous limitations in methodology. However, it is hoped that this study could serve as a stimulus for further research into the effect of cognitive therapy supervision on supervisee competence and clinical outcome.

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