Behavioural and Cognitive Psychotherapy, 2001, 29, 221–233
Cambridge University Press. Printed in the United Kingdom

AN INVESTIGATION INTO THE PSYCHOMETRIC PROPERTIES OF THE COGNITIVE THERAPY SCALE FOR PSYCHOSIS (CTS-Psy)

Gillian Haddock, Sheila Devane, Tim Bradshaw, John McGovern, Nicholas Tarrier, Peter Kinderman, Ian Baguley, Stuart Lancashire and Neil Harris

University of Manchester, U.K.

Abstract. Recent research suggests that cognitive-behaviour therapy (CBT) can significantly improve outcomes for patients with severe mental health problems. However, there are no tools specifically designed to assess competence in delivering CBT to psychotic patients. This study investigates the psychometric properties of the Cognitive Therapy Scale for Psychosis (the CTS-Psy) for assessing the quality of CBT with psychotic patients. Inter-rater reliability of trained raters using the CTS-Psy was investigated using taped therapy of trainees engaged in a CBT oriented psychosis training course. Validity was investigated in relation to examining the degree to which the scale could be used to assess a range of therapist ability and patient severity and by assessing the degree to which the CTS-Psy could pick up changes in skill acquisition during the training course over a 9-month period. The CTS-Psy demonstrated excellent inter-rater reliability and good validity in relation to it being able to rate all standards of therapy and all types of patient sessions in the sample studied. In addition, the scale was sensitive to changes in clinical skills during a training course and could discriminate between those who had received training and those who had not.

Keywords: CBT, psychosis, cognitive therapy scale-psychosis (CTS-Psy), validity, reliability.

Introduction

For many years the main treatment for patients experiencing severe and enduring mental health problems such as schizophrenia has been neuroleptic medication. More recently, research has demonstrated that the effectiveness of medication can be enhanced with psychosocial treatments such as family interventions (Mari & Streiner, 1994) or individual cognitive-behavioural therapy, in terms of improving relapse rates, reducing the severity of hallucinations and delusions and improving carer functioning (Haddock et al., 1998). However, despite these research findings, the availability of training for mental health professionals in this area is limited and the number of therapists who are completely trained is small. This has resulted in very few psychotic patients receiving any sort of CBT in routine

Reprint requests to Gillian Haddock, Department of Clinical Psychology, University of Manchester, Tameside General Hospital, Fountain Street, Ashton under Lyne OL6 9RW, U.K.

services (Tarrier, Haddock, & Barrowclough, 1998). No professional group formally receives routine, adequate cognitive-behavioural intervention training specific to this client group, although some training programmes do provide a limited coverage of the area. A study carried out by Devane et al. (1997) confirms the dearth of practical skills in this area. They evaluated the skills of a highly motivated group of mental health nurses applying for post-qualification training in cognitive-behaviourally oriented psychosocial intervention training for schizophrenia. As expected, the study showed that the level of skills in this type of approach was limited.

Despite this, there is evidence that given appropriate training, CBT can be applied effectively with patients who have severe mental health problems by a range of mental health professionals. Two pilot studies were carried out in London by Leff and colleagues where psychiatric nurses received training in cognitive-behaviourally oriented schizophrenia family work over a 9-month period (Lam, Kuipers, & Leff, 1993). Trainees showed a gain in knowledge about the illness and about family work, as well as a positive change in their attitudes and beliefs about this area. Similar outcomes were also found by Gamble, Midence and Leff (1994). Brooker et al. (1992, 1994) also described two controlled studies, carried out in Manchester, in which community psychiatric nurses were trained to deliver a psychosocial intervention to clients with schizophrenia living at home with relatives. The intervention consisted of family intervention training in the approaches developed by Barrowclough and Tarrier (1992) and Falloon et al. (1985). There were superior improvements in target symptoms, personal functioning and social adjustment of the clients in the experimental group. Furthermore, the families who were involved reported a reduction in their own psychological problems and an increase in satisfaction with services. More recently, the Thorn Initiative training course (a cognitive-behaviourally oriented programme set up to train mental health professionals to work more effectively with psychotic patients) demonstrated that significantly improved outcomes could be obtained on a number of symptom outcomes following a 9-month intervention from trained therapists (Lancashire et al., 1996).

Despite these promising findings in relation to patient outcome and therapist changes in knowledge, little attention has been paid to the therapy skills necessary to deliver CBT and whether trainees acquire these during training. The distinction between the skills practised and the training programme teaching them can be easily blurred when embarking on a clinical skill assessment process. Training evaluation measures usually do not assess the quality of clinical training per se but instead the competence of students from which the quality of training is inferred. For example, many training courses evaluate competency from exam results and other written submissions rather than direct observation of clinical skills. Many approaches that have been used have relied on some method of rating or assessing a reconstruction, or re-enactment of the clinical scenario, e.g., role play (Kaaya, Goldberg, & Gask, 1992) or case vignettes (Siram, Chanrashekar, Isaac, & Srinivasamurthy, 1990) although Maguire et al. (1978) suggested that assessing audio or video tapes of real clinical situations were superior to practice situations in the evaluation of interviewing skills.

There are no published scales that have been used to evaluate the skills of trainees engaged in psychosocial interventions with psychotic clients. However, the Cognitive Therapy scale (CTS) developed by Young and Beck (1980) to evaluate cognitive therapy training with neurotic clients has elements that are common to those used in work with psychotic clients. It is a 13-item scale used to evaluate therapist competence in cognitive therapy for neurotic disorders. All the variables are rated on a Likert-type-7-point scale and the variable

scale values are associated with concrete behavioural descriptions. A detailed rating manual is available. The scale requires varying degrees of inference for particular variables and the raters need a good knowledge of CBT principles and practice to use this scale. The scale consists of two subscales. The general skills subscale is considered to measure general therapy skills that are not thought to be unique to cognitive-behavioural therapy (for example, empathy, feedback, professional manner). The technical skills sub-scale is designed to rate items that are thought to be unique to cognitive-behaviour therapy (for example, focus on key cognitions, use of cognitive-behavioural techniques, homework). In a study of the psychometric properties of the CTS, Dobson, Shaw and Vallis (1985) showed that although the CTS has the general and technical skill subscales, it largely measures one construct. They demonstrated that the CTS has strong internal consistency (Alpha coeff. 0.95) and that the item total correlations for 10 variables were 0.72 (mean). The variable relating to setting homework was the exception, with a low correlation due to its infrequent use in the sessions rated despite this being a notable feature of cognitive therapy.

Although this scale has been widely used to evaluate the application of cognitive-behavioural skills with neurotic clients, no similar measure has been developed for assessing the quality of CBT as applied to psychotic patients. As a result, the present authors have compiled a scale to assess the competence of therapists delivering cognitive-behaviourally oriented interventions with psychotic clients. The scale was developed partly from the influence of the Young and Beck scale and partly as a result of much clinical experience on the part of the authors in working with complex psychotic clients. CBT for psychosis clearly has many principles and actions in common with CBT for anxiety and depression although it does have a number of significant departures, mainly due to the nature of the psychotic disorder. This is because not only are the content of the psychological processes different but there are most likely differences in the nature of the processes and their regulation as a consequence of the psychotic disorder. For example, the regulation of attention, the processing of social cues and the regulation of arousal may all differ quite significantly in psychotic patients so that therapy requires a considerable flexibility that needs to be accommodated into any scale measuring therapy. The associated features of psychoses that may influence therapy have been outlined in Haddock and Tarrier (1998). As a result, the scale was designed to take into account the non-standard nature of some CBT work with psychotic clients and to take account of the way CBT has been adapted and developed for use with psychotic clients.

The aim of the present study was to investigate the inter-rater reliability and validity of CTS-Psy in order to evaluate CBT skills of therapists working with psychotic patients.

Method

The CTS-Psy was developed as a result of influences from a number of sources including the Young and Beck cognitive therapy scale and clinical experience of working with psychotic patients by the authors. As a result, a number of similar items to those included on the Young and Beck scale were included in the CTS-Psy as these were thought to reflect some of the core skills necessary for CBT for psychosis. However, some modifications were necessary to account for the diversity of presentation of psychotic clients. An earlier draft has already been described (see Devane et al., 1997). Further modifications and refinements were made for the purposes of this study by the first and sixth author (GH and PK: see

Appendix 1) as a result of further pilot work. The modifications included providing more specific anchor points for the individual items and removing the items relating to pacing and use of time, empathic skills and case conceptualization. An item relating to overall quality of the intervention was added and two items were combined into one (use of cognitive interventions and use of behavioural interventions). These modifications were made on the basis of initial discussions between the authors, all of whom have specific training in cognitive-behaviour therapy and its application to psychotic patients and have used the scale to rate tapes of therapy sessions over a 2-year period. Some of these items were still thought to be important in CBT work in psychosis so were not entirely removed and were subsumed under different sub-scales. Where items were modified or removed, this was as a result of observations that they poorly reflected the skills applied in CBT for psychosis work as carried out within the Manchester group and for which they showed poor inter-rater reliability. The final scale used in this study consisted of 10 items, of which five contributed to each of the two subscales: agenda setting, feedback, understanding, interpersonal effectiveness and collaboration (general skills subscale); guided discovery, focus on key cognitions, choice of cognitive-behavioural interventions, quality of interventions applied and homework (technical skills subscale). Items are rated on a 7-point scale from 0 to 6 where a higher score indicates a greater competency. Hence a total maximum score achievable is 60 and maximum totals of 30 are achievable on each sub-scale.

Inter-rater reliability

Four raters received intensive training on the CTS-Psy. This training was manualized. The raters were two clinical psychologists, one mental health nurse and a research fellow with a background in social work. All had undergone specialist training in cognitive-behaviour therapy and were either accredited cognitive-behaviour therapists with the British Association of Behavioural and Cognitive Psychotherapists or met the criteria necessary to be accredited. In addition, all had received specialist training in the application of CBT to psychotic patients and their competence in carrying this out had been evaluated. A random sample of tapes was selected from the submitted tapes of trainees engaged in the Manchester University Thorn Initiative training course. This was a diploma level course designed to train mental health professionals to deliver cognitive-behaviourally oriented interventions to psychotic patients. A random sample was selected in order to have a spread of competency reflected in the recordings. From this random sample, an independent trained CTS-Psy rater selected five tapes that reflected a range of scores and competence for the reliability evaluation. All raters engaged in the reliability study listened to all the tapes independently and rated them using the CTS-Psy.

Validity

The CTS-Psy has very good face and content validity as judged by a range of mental health professionals who have a spread of CBT skills with the client group. However, in order to investigate whether it is useful in evaluating the skills of mental health professionals engaged in CBT with psychotic patients it is essential to investigate whether it is possible to rate all standards of therapy with all types of psychotic patients and whether these ratings

reflect the competence of the person carrying out the therapy. For this reason, the validity of the CTS-Psy was investigated in tandem with the Manchester Thorn Initiative training course described above.

Twenty-one Thorn trainees from two consecutive cohorts were instructed to select four clients from their current caseload for cognitive-behavioural treatment to work with during their training. The trainees comprised 20 mental health nurses and 1 occupational therapist and they had to have at least 1 year post-qualification experience and have access to or currently be working with clients with a severe mental health problem. All clients had to be adults with a serious mental health problem. The majority had a diagnosis of schizophrenia, only three having other diagnoses such as schizoaffective disorder and bi-polar disorder. Over 9 months, for 1 day per week, trainees were provided with instruction to carry out individual and family cognitive-behaviourally oriented psychosocial interventions with the clients. The interventions were carried out under close supervision throughout the course by therapists skilled in the application of CBT to psychotic clients (and who also reached the British Association of Behavioural and Cognitive Psychotherapies' minimum training standards for the practice of cognitive-behaviour therapies, BABCP, 2000). Interventions taught included assessment and formulation, psychological management of hallucinations, delusions and negative symptoms, medication compliance work, early intervention and relapse prevention/keeping well strategies and coping strategy enhancement. Family interventions were also taught although these skills were not formally evaluated in this study.

The trainees were required, where possible, to tape every therapy session with all the study clients for the duration of the course teaching (9 months). They were provided with C90 tapes and battery-operated tape-recorders with microphones. Written consent was obtained from the clients. Therapy tapes were submitted each month. One tape per trainee was randomly selected from a initial baseline period (within 4 weeks of course commencement, prior to any formal skills training) and at the end of training (within 4 weeks of the course finishing). These sessions had to be where the trainees were engaging in the usual therapeutic practice (baseline tape) and where they were engaging in interventions as taught on the course (final tape).

A control sample of 17 subjects was identified who received no psychosocial intervention training during the same period. The control subjects were closely matched with the Thorn trainees on length of experience in mental health services, time spent working with seriously mentally ill clients, qualifications, place of work, type of caseload, diagnosis of patients with whom they worked, and age. The sample was identified by the authors in collaboration with the trainees. The control subjects were required to tape themselves carrying out their usual therapeutic interventions with an individual client suffering from a serious mental illness at baseline (as described) and after 9 months. Equipment necessary to carry-out the recordings was supplied and patient consent was obtained.

Tape ratings

All sampled experimental and control tapes were independently coded to remove any reference to time-point or status of trainee carrying out the clinical session and blind and independent ratings on the CTS-Psy were carried out by four raters (GH, JM, TB, SL).

https://doi.org/10.1017/S1352465801002089 Published online by Cambridge University Press

Results

Inter-rater reliability

As can be seen from Table 1, substantial to almost perfect correlations were obtained between the four sets of ratings on five audio-taped sessions for total CTS scores and for both the technical and general sub-scale scores. Examination of the correlations between the raters on individual items indicates that the majority had a substantial intra-class correlation and the rest showed moderate correlations (''choice of CBT intervention'', ''feedback'', ''focus on key cognitions'' and ''guided discovery''). The *p* values suggest that raters were inconsistent on three items (focus, homework and quality); however, the *p* value refers to consistency rather than agreement between raters and this finding was as a result of rater 4 consistently giving lower scores than the other raters for these items.

Validity

No subject failed to provide tape material and hence there were no drop outs from the study. However, full pre and post data were only available for 14 experimentals and 10 controls. Missing data was due to some trainees and controls not providing enough tapes of clinical sessions at the correct time points or to inaudible tape material due to failure of technical equipment. As a result, only 24 subjects could be used for the analysis of skill acquisition.

Ratings

All tapes could be rated fully on the CTS-Psy and scores were provided for every subscale for each tape rated regardless of the quality of the therapy or the difficulty of the patient.

Table 1. Intra-class correlations between raters

		Difference between raters *p* value
Agenda	0.95	.88
Choice	0.41	.63
Collaboration	0.87	.44
Feedback	0.55	.18
Focus	0.58	.016
Guided discovery	0.60	.19
Homework	0.81	.01
Interpersonal	0.86	.27
Quality	0.73	.04
Understanding	0.94	.16
Total	0.94	
General	0.95	
Technical	0.80	

https://doi.org/10.1017/S1352465801002089 Published online by Cambridge University Press

Table 2. Means of total, general, technical and item scores of CTS

	Experimental (n = 14)		Control (n = 10)		
	Pre	Post	Pre	Post	p value
Total skills score	26.5	33.5	21.0	18.6	.004
General skills	15.9	20.3	13.2	13.9	.033
Technical skills	10.6	13.2	7.8	4.7	.002
Agenda	1.8	3.9	0.4	0.4	.001
Choice	3.1	4.3	2.0	1.2	<.001
Collaboration	3.3	4.4	3.0	2.9	.0022
Feedback	1.7	2.6	1.2	1.2	.035
Focus	2.7	2.4	2.2	1.2	.27
Guided discovery	1.9	3.2	2.3	1.2	.008
Homework	1.0	1.1	0.6	0.3	.15
Interpersonal	4.7	5.4	4.5	5.3	.99
Quality	1.8	2.2	0.7	0.8	.028
Understanding	4.4	4.1	4.1	4.1	.87

Skill acquisition

Table 2 shows the mean scores of the experimental and control groups at pre-intervention and post intervention rating point on total CTS scores, general and technical sub-scale scores and individual item scores. Table 3 illustrates mean differences between the groups with 95% confidence intervals on total, subscale and individual item scores.

A one factor analysis of variance using pre-intervention scores as a co-variate (Gibbons et al., 1993) revealed highly significant differences between the groups on total (F[1,21] = 10.5, p = .004 and technical skill scores of the CTS (F[1,21] = 12.8, p = .002). There was a less impressive, although significant, difference between the groups on the general skills scores (F[1,21] = 5.2, p = .033). Examination of the means indicates that the experimentals were superior to the controls at post treatment and that the differences were greatest for the

Table 3. Mean difference (95% confidence intervals) in post values adjusting for pre-values

Total skills scores	12.8 (4.6, 21.0)
General skills score	4.9 (0.4, 9.5)
Technical skills score	7.8 (3.2, 12.3)
Agenda	2.8 (1.3, 4.3)
Choice	3.0 (1.5, 4.4)
Collaboration	1.5 (0.2, 2.7)
Feedback	1.4 (0.1, 2.7)
Focus	0.9 (–0.8, 2.6)
Guided discovery	2.1 (0.6, 3.5)
Homework	0.8 (–0.3, 1.9)
Interpersonal	0.0 (–0.7, 0.7)
Quality	1.1 (0.1, 2.2)
Understanding	–0.1 (–1.8, 1.5)

https://doi.org/10.1017/S1352465801002089 Published online by Cambridge University Press

total and technical skills scores. Pre-treatment scores were not significantly different between the groups. When individual items are examined, it can be seen that the experimental group were rated as significantly better (with at least $p > .035$) on all the individual items except for ''understanding'', ''interpersonal effectiveness'', ''homework'' and ''focus on key cognitions'' where there were no significant differences between the groups. When the mean differences in post values (adjusted for pre-values) are examined it is clear that the experimental group show modest, but consistent, superiority over the controls on the majority of items except for understanding and interpersonal effectiveness. For understanding there was an extremely small mean difference in favour of the controls (0.1). For interpersonal effectiveness there was no mean difference between the groups.

Discussion

This study investigated the inter-rater reliability and validity of the CTS-Psy. The results confirmed that the scale is easy to use and reliable and can distinguish between different therapist skill levels. High inter-rater reliability was observed not just for overall scores on the scale but also for the technical and general subscales. The majority of individual items also had good inter-rater reliability although there were some more modest correlations for some of these. These findings indicate that raters using the scale can reliably discriminate between specific therapy skills as well as general competence.

The validity of the scale was investigated in relation to its ability to distinguish between the skills acquired between students who had received CBT for psychosis training and those who had not. The scale could discriminate between them. Highly significant differences were found on total, technical and general subscales of the CTS-Psy between the groups following training where there had been no significant pre training differences. The differences were greatest for total and technical skills rather than general skills. This finding is as might be expected, where specific CBT for psychosis skills increase most as a result of training. More general therapy skills (such as understanding and interpersonal effectiveness) are less likely to change as a result of CBT training in the sample as it could be expected that these qualities are already an integral part of a mental health professional's work.

Further investigation of its validity in relation to CBT for psychosis is warranted. For example, this study is limited in that the scale was evaluated only in relation to one training course where there was a limited sample of trainees and a high tape attrition rate. A greater test of the scale's validity would be to compare ratings for trainees and controls selected in exactly the same way and who were randomly allocated to training or no training. This would allow for the groups to be even more comparable in terms of the initial level of training, experience and enthusiasm/motivation for CBT work. It is possible that the trainees were more motivated to submit high quality therapy sessions than the control subjects who were not engaged in the training course even though the tape ratings were confidential and not used to assess the trainee's competency to pass the course. In addition, although the scale was able to discriminate between trained and non-trained subjects, it is not possible to see whether the skills that were being trained on the course would have any effect on patient outcome. However, data on patient outcome for a cohort of patients treated by Thorn trainees (some of whom were included in the current study) indicate that patients do show significant improvements in functioning as a result of a 9-month treatment (Lancashire et al., 1996). This suggests that the skills trained in the current cohort and picked up on the

CTS-Psy do have some relevance to patient outcome. This aspect of validity could be investigated further.

In addition, despite the CTS-Psy distinguishing between the trained and non trained subjects the actual level of skills rated in relation to the possible totals achievable on the scale are modest. Bearing in mind that a total score of 60 is possible, only 8 of the 14 experimental subjects achieved over 50% on the scale. Although this is impressive compared to the controls (only one of whom achieved over 50%), these findings could be interpreted in two ways. First, that the trainees' scores on the CTS-Psy genuinely reflect their level of skill and they have some way to go in terms of improving. Second, it is possible that the scale is not picking up skills that the trainees have acquired and which are important to psychotic patient outcome. The Young and Beck scale on which the CTS-Psy was partially based was designed to rate the skills of therapists applying Beckian cognitive therapy to neurotic clients. It is possible that the modifications that were made were not sufficient to detect the changes in skills necessary to the type of cognitive-behavioural approaches adopted with psychotic clients. Although the latter is possible, the former seems more likely as the CTS-Psy scores reflect the anecdotal impressions of supervisors and trainers. The sample generally had no previous training in cognitive-behavioural approaches and little experience in applying the therapy. A 9-month training course is very short and perhaps cannot be expected to provide trainees with expert cognitive-behavioural skills and clinical experience in applying them. It is possible that if these trainees were followed-up and had continued to gain clinical experience under supervision that the CTS-Psy may have picked up further improvements. In addition, the modifications to cognitive-behaviour therapy that have been made for psychotic patients in terms of what is assessed on the CTS or CTS-Psy are not so great as to be likely to make a significant difference to trainee scores. Despite these limitations, the CTS-Psy is a practical, easy to use scale for evaluating trainee competence during training and it could also be used for assessing treatment fidelity during research trials where CBT for psychosis is being applied.

References

Barrowclough, C., & Tarrier, N. (1992). *Families of schizophrenic patients: Cognitive behavioural interventions.* London: Chapman & Hall.

British Association of Behavioural and Cognitive Psychotherapies (2000). *Minimum training standards for the practice of cognitive and behavioural psychotherapies.* Oxford: BABCP.

Brooker, C., Tarrier, N., Barrowclough, C., Butterworth, T., & Goldberg, D. (1992). Training community psychiatric nurses for psychosocial intervention: Report of a pilot study. *British Journal of Psychiatry, 160,* 836–844.

Brooker, C., Falloon, I. R. H., Butterworth, T., Goldberg, D., Graham-Hole, V., & Hillier, V. (1994). The outcome of training community psychiatric nurses to deliver psychosocial interventions. *British Journal of Psychiatry, 165,* 222–230.

Devane, S., Haddock, G., Lancashire, S., Baguley, I., Butterworth, T., Tarrier, N., James, A., & Molyneux, P. (1997). The clinical skills of community psychiatric nurses working with patients who have severe and enduring mental health problems: An empirical analysis. *Journal of Advanced Nursing, 27,* 253–260.

Dobson, K. S., Shaw, B. F., & Vallis, T. M. (1985). Reliability of a measure of the quality of cognitive therapy. *British Journal of Clinical Psychology, 24,* 295–300.

Gamble, C., Midence, K., & Leff, J. (1994). The effects of family work training on mental health nurses' attitude to and knowledge of schizophrenia. *Journal of Advanced Nursing, 19,* 893–896.

Falloon, I. R. W., Boyd, J., McGill, C., Williamson, M., Ranzani, J., Moss, H., Gilderman, A., & Simson, G. (1985). Family management in the prevention of morbidity of schizophrenia: Clinical outcome of a two year longitudinal study. *Archives of General Psychiatry, 42,* 887–896.

Gibbons, R. D., Hedeker, D., Elkin, I., Warenaux, C., Kraemer, H. C., Greenhouse, J. B., Sheas, T., Imber, S.D., Sotsky, S. M., & Watkins, J. T. (1993). Some conceptual and statistical issues in analyis of longitudinal psychiatric data. *Archives of General Psychiatry, 50,* 739–750.

Haddock, G., & Tarrier, N. (1998). Assessment and formulation in the cognitive-behavioural treatment of psychosis. In N. Tarrier, A. Wells & G. Haddock (Eds.), *Treating complex cases: The cognitive-behavioural approach.* Chichester: Wiley.

Haddock, G., Tarrier, N., Spaulding, W., Yusupoff, L., Kinney, C., & McCarthy, E. (1998). Indivdual cognitive-behaviour therapy in the treatment of hallucinations: A review. *Clinical Psychology Review, 18,* 821–838.

Kaaya, S., Goldberg, D., & Gask, L. (1992). Management of somatic presentations of psychiatric illness in general medical settings: Evaluation of a new training course for general practitioners. *Medical Education, 26,* 138–144.

Lam, D., Kuipers, L., & Leff, J. P. (1993). Family work with patients suffering from schizophrenia: The impact of training on psychiatric nurses' attitude and knowledge. *Journal of Advanced Nursing, 18,* 233–237.

Lancashire, S., Haddock, G., Tarrier, N., Baguley, I., Butterworth, T., & Brooker, C. (1996). The impact of training community psychiatric nurses to use psychosocial interventions with people who have severe mental health problems. *Psychiatric Services, 48,* 39–42.

Maguire, P., Roe, P., Goldberg, D., Jones, S., Hyde, C., & O'Dowd, T. (1978). The value of feedback in teaching interviewing skills to medical students. *Psychological Medicine, 8,* 695–704.

Mari, J., & Streiner, D. L. (1994). An overview of family intervention and relapse in schizophrenia: Meta analysis of research findings. *Psychological Medicine, 24,* 565–578.

Sriram, T. G., Chandrashekar, C. R., Isaac, M. K., & Srinivasamurthy, R. (1990). Development of case vignettes to assess the mental health training of primary care medical officers. *Acta-Psychiatrica-Scandinavica, 82,* 174–177.

Tarrier, N., Haddock, G., & Barrowclough, C. (1998). Training and dissemination: Research to practice in innovative psychosocial treatments for schizophrenia. In T. Wykes, N. Tarrier & S. Lewis (Eds.), *Outcome and innovation in the psychological management of schizophrenia.* Chichester: Wiley.

Young, J., & Beck, A. T. (1980). *The cognitive therapy scale.* Philadelphia: Centre for Cognitive Therapy. Unpublished manuscript.

Appendix 1. Cognitive Therapy Scale for Psychosis (CTS-Psy)

Coding key: 1 = appropriately included
0 = inappropriately omitted
9 = appropriately omitted
(9 set to 1 in total score, 9 initially scored to give differentiation between included and omitted)

I: General

a) Agenda

1 The therapist noted patient's current emotional state with regard to agenda setting.
2 Therapist and patient established agenda for session.
3 Priorities for agenda items were established.
4 Agenda was appropriate for time allotment (neither too ambitious nor too limited).
5 At some point, patient discussed salient events or problems occurring during the time since the last session.
6 The agenda was adhered to during the session.

b) Feedback

1 Therapist asked for feedback concerning previous session.
2 Therapist asked for feedback and reactions to present session.
3 Therapist asked client specifically for any *negative* reactions to therapist, content, problem formulation, etc.
4 Therapist attempted to respond to patient's feedback.
5 Therapist checked that the client clearly understood the therapist's role, and the purpose and limitations of sessions.
6 Therapist checked that he or she had fully understood patient's perspective by summarizing and asking client to fine-tune or correct as appropriate.

c) Understanding

1 Therapist conveys understanding by rephrasing or summarizing what the patient has said.
2 Therapist shows sensitivity by reflecting back feelings as well as ideas.
3 Therapist's tone of voice was emphatic.
4 Therapist acknowledged patient's viewpoint as valid and important.
5 Therapist did not negate patient's point of view.
6 Where differences occurred, they were acknowledged and mutually respected.

d) Interpersonal effectiveness

1 Therapist seemed open rather than defensive shown by not holding back impressions or information, not evading patient's questions.
2 Content of what therapist said communicated warmth, concern and caring rather than cold indifference.
3 Therapist did not criticize, disapprove or ridicule the patient's behaviour or point of view.
4 Therapist responded to, or displayed, humour when appropriate.
5 Therapist made clear statements without frequent hesitations or rephrasings.
6 Therapist was in control of the session, she or he was able to shift appropriately between listening and leading.

e) Collaboration

1 Therapist asked patient for suggestions on how to proceed and offered choices when feasible.
2 Therapist ensured that patient's suggestions and choices were acknowledged.
3 Therapist explained rationale for intervention.
4 Flow of verbal interchange was smooth, with a balance of listening and talking.
5 Collaboration was maintained even when therapist was taking a primarily educative role.
6 Discussion was pitched at a level and in a language that was easily understandable by the patient.

II: Specific

f) Guided discovery

1 Therapist used questions to determine the meaning a client attached to an event or circumstance.
2 Therapist used questions to show incongruities or inconsistencies in patient's conclusions without demeaning the person.
3 Therapist used questions to help patient explore various facets of a problem.
4 Therapist used questions to examine patient's arbitrary conclusions or assumptions.
5 Therapist used questions to elicit alternative ways of solving a problem.
6 Therapist used questions to consider alternative explanations.

g) Focus on key cognitions

1 Therapist elicited (or referred to) specific thoughts, assumptions, images, memories, beliefs or perceptions.
2 Such cognitions elicited (or referred to) above the ones the patient reports as involved in key problems.

Such cognitions are explained or discussed in terms of:

3 Phenomenological characteristics (content, form, frequency, duration, etc.).
4 The relationship with patient's key problems.
5 The link between cognition and affect.
6 Such discussions take place in an atmosphere of collaboration between therapist and patient.

h) Choice of intervention

1 Therapist selected cognitive-behavioural techniques of intervention.
2 The overall strategy was specifically related to the patient's problems.
3 Each individual cognitive-behavioural technique was relevant to one of the key problems of the patient.
4 Strategies used were directly related to a formulation.
5 The techniques chosen had demonstrable (via research evidence, etc.) potential for change with respect to the problems at which they were targeted.
6 Therapist sought adequate feedback from the patient regarding the strategy for change.

i) Homework

1 Therapist explicitly reviewed previous week's homework.
2 Therapist summarized conclusions derived, or progress made, from previous homework.
3 Appropriate homework was assigned.
4 Therapist explained rationale for homework assignment.
5 Homework was specific and details were clearly explained.
6 Therapist asked patient if he or she anticipated any problems in carrying out homework.

j) Quality of intervention

0 The therapist applied no cognitive-behavioural techniques.

Techniques were applied with:
1 – Barely acceptable level of skill
2 – Mediocre
3 – Satisfactory
4 – Good
5 – Very good
6 – Excellent

Note: score for this question is 0 if no cognitive-behavioural techniques are applied. If such techniques were employed, the score is the overall rating above.

https://doi.org/10.1017/S1352465801002089 Published online by Cambridge University Press