

# Cognitive–behavioural techniques for general psychiatrists in the management of patients with psychoses<sup>†</sup>

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**Background** Recent research progress showing the benefits of cognitive therapy in schizophrenia leaves the general psychiatrist unsure whether to attempt to use such techniques.

**Aims** To test whether cognitive–behavioural techniques are beneficial in the management of patients with schizophrenia in general psychiatric practice.

**Method** A randomised controlled study comparing the use of cognitive–behavioural techniques and befriending in schizophrenia.

**Results** Significant improvement in symptoms occurred in the group treated with cognitive–behavioural techniques but not in the befriending group. During the 6-month follow-up period the cognitive–behavioural group tended to have shorter periods in hospital.

**Conclusions** General psychiatrists could help their patients with schizophrenia by using cognitive–behavioural techniques. Such techniques are well within the capability of general psychiatrists, but their application would involve more of the consultant's time spent in direct contact with patients with psychoses.

**Declaration of interest** None.

While antipsychotic drugs are effective in treating the acute phase of schizophrenia and in preventing relapse, there remain many patients who have persistent symptoms, both positive and negative. Even drugs such as clozapine, recommended for resistant symptoms, only appear effective in about a third of those for whom they are indicated (Kane *et al*, 1988). Side-effects, including tardive dyskinesia, are common. Poor or erratic compliance with prescribed medication (Buchanan, 1992) and psychosocial management (e.g. family therapy or day care attendance) present major problems in terms of resources, accessibility and acceptability. A general psychiatrist should be able to help patients who are receiving, for example, neuroleptic treatment, social skills training and family therapy, by giving explanations and help in developing coping skills, but many general psychiatrists shy away from a direct 'hands-on' approach to psychotic symptoms, for fear of reinforcing them; moreover, Stanton *et al* (1984) obtained somewhat negative results in their study of psychodynamic psychotherapy in schizophrenia. The use of cognitive therapy in schizophrenia has increased lately (e.g. Tarrier *et al*, 1998), and has shown definite improvements.

We carried out an uncontrolled retrospective study of 64 patients (Kingdon & Turkington, 1991) and have published detailed case studies describing clear, specific techniques for thought disorder (Turkington & Kingdon, 1991), delusions (Turkington & Siddle, 1998) and hallucinations (Scott *et al*, 1992) in patients with both acute and chronic schizophrenia; results so far have been encouraging. It is difficult in practice to evaluate these techniques applied by a general adult psychiatrist, but we undertook a preliminary investigation, although it is difficult to obtain controlled conditions, since these patients are so unpredictable and negative as often to be unable to give their consent to participate.

## METHOD

### Design

The null hypothesis was that the use of cognitive–behavioural techniques with a 'normalising rationale' would not improve the symptoms, or reduce the length of stay in hospital, for patients with schizophrenia as compared with a 'befriending' control programme.

### Patients

Patients were aged 16–65, had active psychotic symptoms and fulfilled the research criteria of the *International Classification of Diseases*, 10th edition (World Health Organization, 1992) for schizophrenia. Most patients also fulfilled the tighter research criteria of DSM-III-R (American Psychiatric Association, 1987) and it was decided to analyse this subgroup separately after the initial results were obtained. Some of these patients were in a state of acute relapse and the remainder had neuroleptic-resistant positive symptoms. Consent to participate was initially sought by the referring psychiatrist, and confirmed by the research assessor, before the first interview. The consent form was designed to be as intelligible as possible to patients whose level of psychosis might significantly interfere with their understanding of the necessary procedures involved in any research study. It was also intended to make allowance for the concrete thinking associated with schizophrenia, and not exclude those of lower intellectual levels. The approval of the appropriate Ethics Committees of the Sheffield and Bassetlaw Hospitals was obtained.

### Experimental groups

The plan was for both groups to be seen by the therapist (D.K., a general psychiatrist) as soon as possible after the initial ratings were completed, usually within 2–4 days. Each patient would receive six sessions within a 2-month period, and family members, where available, would be interviewed once or twice. The length of sessions would be flexible, but averaging 20–40 minutes each. It was planned to have three sessions in the first 2 weeks, but the frequency would decrease, to finish 6–8 weeks after the commencement of therapy. Each psychotic patient would be offered on average 3 hours of face-to-face contact with the consultant psychiatrist over the 8 weeks, with the psychiatrist using either a

<sup>†</sup>See editorial, pp. 93–94, this issue.

cognitive-behavioural approach or a structured but purely supportive one.

This was therefore to be a comparatively brief, time-limited intervention, but previous experience with the group suggested that this would be sufficient to produce detectable improvement in many patients. Although in clinical practice further sessions would be offered over an extended period, and often as part of their usual out-patient review, these would generally be less frequent – i.e. weekly reducing to monthly, where symptoms continued, and 3–6-monthly for monitoring and rapport maintenance, where symptoms were quiescent. It was felt that this amount of time was not excessive for a general psychiatrist dealing with a patient suffering psychotic episodes, and could in the long term be cost effective and time effective. To maximise compliance and reduce drop-out rates, patients were seen in various places (home, hostels, day hospitals or as in-patients in hospital).

We thought about audiotaping the sessions to establish that differences could be detected between the two categories of intervention, but there was concern that this might interfere with the delicate process of establishing and maintaining rapport with such a difficult group of patients. Rapport building is fundamental to the techniques to be used; delusions about the recording process and apparatus might have complicated matters, as described by Sacks *et al* (1974) in their research with patients with schizophrenia. Most patients, however, were happy to have sessions taped, and often used them as homework between sessions, finding it helpful to have their consultant available when at their most distressed. Independent analysis of a sample of tapes confirmed treatment fidelity in the two limbs of the study.

### Cognitive techniques group

Treatment was based on a manual which was prepared before the trial began, having been developed for training purposes (published with accompanying theoretical and case material: Kingdon & Turkington, 1994). The techniques were based on the works of Beck *et al* (1979), and supplemented with a normalising rationale incorporating a vulnerability–stress model (Zubin & Steinhauer, 1981), to assist in providing credible research-based explanations

for patients' individual psychopathological symptoms.

By examining the antecedents, the approximate time of the apparent onset of symptoms could be established. Inductive questioning identified faulty cognitions deriving from, and subsequent to, this period, and this allowed patients to develop credible shared explanations of the onset and maintenance of their symptoms, and often to detect individual stressors, or accumulations of stressors, which were personally significant and led to changes in perception, belief, motivation, etc. Some patients believed themselves to be ill; many did not. But for all of them the development of a shared explanation was a cornerstone of improved adherence and better coping.

Attempts were made, in collaboration with the patients, to understand delusional beliefs by examining the ways in which significance had been attached to specific events or circumstances: alternative explanations were then presented and debated. Questions of fact were asked of the patient with a delusional belief, initially angled tangentially with viable linked reality-testing homework exercises; the patient could then be asked what would be the implications if the belief were true. Attempts were also made to reduce distressing related affect and positive and negative types of behaviour.

With mood-syntonic delusions (e.g. elated mood with grandiosity), or highly systematised delusions, the technique of 'inference chaining' was mobilised. This involved tracing a delusion to its underlying linked irrational belief, and working at the schema level beneath the resistant psychotic symptoms. An example of this would be a man with a strong schema vulnerability on entitlement (an excessively demanding attitude towards fairness) who loses his career (as he sees it, unfairly) and then develops a systematised grandiose delusion which maintains self-esteem by protecting against depression. In such a case, working with entitlement is much more efficient than working with grandiosity.

Direct confrontation was carefully avoided, and tactical withdrawal used when necessary to retain rapport. Techniques of reality testing of hallucinations were used to establish the uniqueness of the phenomena to the patients themselves – as coming from within rather than from outside their own minds. Alternative explanations that were then given considered evidence that hallucinatory phenomena

can be related to stressful circumstances, such as deprivation states. Attitudes to voices were tackled, as patients very often took dichotomous overly passive or overly involved coping styles. Patients were helped to assert themselves against the voices and start to exert some control with the help of simple voice diaries. Not paying attention, distraction and focusing techniques, including rational responding, were taught systematically.

By drawing an analogy between delusions of control and cultural beliefs in supernatural forces, rational argument could be used. Fears of mental degeneration, violence or madness itself were 'de-catastrophised' with patients, families and their professional carers, and simple homework assignments were set to investigate delusional beliefs. Diaries or detailed recall allowed pinpointing of precipitating factors associated with the hallucinations or delusional beliefs.

The approach was therefore a very flexible one, with a particular focus on development and maintenance of rapport. The patient's clinical notes were consulted before the first session to ensure that all information about symptoms and possible precipitating life events was available. This also saved time in the initial assessment, so that the first session, when the patient might well be quite distressed, could be used primarily for establishing rapport. A schedule was devised for recording topics discussed and cognitive errors elicited during the sessions. Relaxation tapes were supplied to the cognitive techniques group where indicated, but were not used if delusions might cause misinterpretation.

### Befriending (control) group

The control group were provided with regular contact with a general psychiatrist, in addition to normal management by their treatment team. So that assessors, families and the treatment team would remain blind to the randomisation, both controls and their families were interviewed for similar periods and at similar intervals of time to the cognitive techniques group. Interviews mostly consisted of non-directive discussion around neutral topics, such as the patient's interests and domestic matters. The fact that this time was set aside for the patient and family by the consultant himself was greatly welcomed and appreciated. However, a specifically medical explanation was prepared for patients (particularly

those with paranoid ideas) and families who found it difficult to accept a doctor who avoided discussing medical matters with them. This took the form of a standard description and explanation of schizophrenia, validated by senior psychiatric colleagues, which was discussed with patients where appropriate. If questions about leave arrangements, medication, etc. were raised, the patient was referred to the appropriate treatment team. Occasionally, where this was appropriate to maintain rapport, messages were passed to the team by the interviewer.

### Assessments

The initial diagnostic assessment was made by the referring psychiatrist, and the diagnostic criteria were confirmed by the assessor at the first interview before entry into the trial. Written consent was obtained from each patient before entry into the study. Many studies of psychosocial treatment of psychosis have relied on relapse as an indicator of the efficacy of the intervention. In this case, the time spent as a

hospital in-patient during the 6 months from the commencement of individual participation was used as one specific indicator of relapse. However, since length of hospital stay is an insensitive measure of change, a broad measure of change in symptoms was also included. The Comprehensive Psychopathological Rating Scale (CPRS; Åsberg *et al.*, 1978) was used because of its wide spectrum, which is appropriate for a group who present such a diversity of symptoms. It is an instrument validated for use in this group and is sensitive to change. The Montgomery-Åsberg Depression Rating Scale (MADRS; Montgomery & Åsberg, 1979) can also be abstracted from it. Initial baseline assessments were made before the start of therapy and repeated after one and two months. Assessors were blind to the patient's treatment allocation. Patients were randomly allocated to two groups on a 2:1 basis (cognitive techniques:befriending) after the initial assessment was made, with the patients, assessors and clinical team remaining blind to the allocation. Statistical analysis was performed using the Mann-Whitney

*U*-test on percentage improvement from the baseline scores.

### RESULTS

Nineteen patients were enlisted into the study: 13 in the cognitive techniques and 6 in the befriending group. All patients continued under the pharmacological and general management of the referring team. One patient in the cognitive techniques group withdrew consent after the initial interview, and so had to be excluded from the study. Although this was his first admission to hospital, he had developed both positive and negative symptoms, which interfered generally with his management in the ward and degree of cooperation. His refusal to participate in the study was viewed by his treatment team as reflecting this degree of morbidity. The characteristics of the two groups are given in Table 1. There were no significant differences between them in age, length of illness or duration of stay in hospital. The cognitive techniques group had more men (7:5) than the befriending group (2:4). Only one was in competitive employment, and unfortunately he lost his job while in hospital. Two-thirds had never married; one-third lived alone.

The patients cooperated well with the assessments, apart from one in the cognitive techniques group who did not complete his final rating. An estimated global and overall rating was assigned to him, based on his 1-month results and rank within the group's initial scores; he continued to progress in his clinical management, and was discharged from hospital within the follow-up period. Calculations were also made excluding his results from the analysis; these did not materially alter the analyses of global scores, but did remove the significance of the overall CPRS score for the DSM-III-R group (see below).

No significant differences were found between the initial ratings of the two groups (Table 2). Over the 2 months, the cognitive techniques group showed significantly lower mean global and overall CPRS and MADRS scores (see Table 3). The CPRS and MADRS scores were also reduced in the befriending group, but not to significant levels. Comparison between the extent of changes in scores demonstrated a statistically significant difference in the global CPRS rating, in favour of the cognitive techniques group (Mann-

**Table 1** Demographic characteristics

	Cognitive therapy group	Befriending group
Mean age (years)	37.4	44.2
Gender (M:F)	7:5	2:4
Marital status		
Single	8	4
Married	2	2
Divorced	1	1
Widowed	1	0
Living		
With parents	5	3
Alone	5	1
With spouse	1	2
With son	1	0
Mean length of illness (years)	9.2	13.0
Mean length of hospitalisation	11.3	14.3

**Table 2** Total group (mean scores)

	Cognitive techniques (n=12)			Befriending (n=6)		
	Start	1 month	2 months	Start	1 month	2 months
Montgomery-Åsberg score	17.5	11.9	9.6	15	12	10.3
CPRS-global	2.5	1.75	1.29	2.67	1.83	2.1
CPRS-total	33.1	19.4	16.2	36	24.3	22

CPRS, Comprehensive Psychopathological Rating Scale.

Whitney  $U=11, P<0.05$ ); the change in the overall CPRS score approached, but did not reach, significance ( $U=18$ : NS). The reduction in psychotic symptoms as measured by the Schizophrenia Change Score (Montgomery *et al*, 1978) showed a non-significant trend in favour of the cognitive techniques group. The reduction in MADRS scores did not differ significantly between the groups. When those patients who did not meet DSM-III-R criteria for schizophrenia were excluded (two from the cognitive techniques and one from the befriending group), the difference in global CPRS scores between the groups became more significant ( $U=5.5, P<0.01$ ), and overall CPRS also became significant ( $U=12, P<0.05$ ) (Table 4).

The cognitive techniques group spent less than half as long in hospital during the 6 months from the commencement of therapy (mean: 4.8 weeks) as the befriending group (mean: 10.2 weeks). However, this did not reach levels of statistical significance. Exactly half of the members of both groups were in acute psychiatric wards on entry into the study. All six of those in the cognitive therapy group had been discharged home within 6 months, whereas two of the three in the befriending group remained in hospital; of these, one was re-admitted during the period of the study, having developed a depressive illness, while the other was not discharged.

**DISCUSSION**

This was a preliminary controlled study, comparing a group of patients with schizophrenia, randomly allocated either to treatment with cognitive techniques or to a control group which received non-directive befriending. A consultant general psychiatrist delivered both interventions in various in-patient and community locations. The befriending group showed some improvement in symptoms during this period, although this was not significant. There certainly was no evidence of any deterioration, and in general, a purely supportive style of consultant interaction and service delivery appeared to lead to better engagement and adherence to treatment. On the other hand, the improvement in the cognitive techniques group was more marked, and there were significant differences in the reduction in global CPRS scores, in comparison with the befriending group. When patients who did not meet

**Table 3** Comparison of initial and final ratings: Mann-Whitney  $U$ -test

	Cognitive group	Befriending group
CPRS-global	$U=9, P<0.005$	NS
CPRS-total	$U=17.5, P<0.005$	NS
MADRS	$U=22, P<0.005$	NS

CPRS, Comprehensive Psychopathological Rating Scale; MADRS, Montgomery-Åsberg Depression Rating Scale.

**Table 4** DSM-III-R group (mean scores)

	Cognitive techniques (n=12)			Befriending (n=6)		
	Start	1 month	2 months	Start	1 month	2 months
Montgomery-Åsberg score	8.1	5.8	4.1	7.8	7.8	6.8
CPRS-global	2.5	1.85	1.25	2.6	2.0	2.4
CPRS-total	31.3	19.8	14.8	36.0	28.4	26.4

CPRS, Comprehensive Psychopathological Rating Scale.

criteria for DSM-III-R were excluded, significant differences were found in both global and overall improvement. There was a non-significant trend towards shorter stay in hospital in the cognitive techniques group: overall length of stay was less and patients were more likely to be discharged at 6 months. However, initial differences in age, gender and hospital experience between the groups, although not significant, may have contributed to this difference.

These results indicate that the change in the consultant's interactional style with psychotic patients, from a monitoring to a 'hands-on' approach (explanations, questioning techniques, coping skills and homework exercises), could help very much to improve understanding and coping ability, reduce symptoms and reduce levels of distress. Engagement with both the cognitive techniques and befriending was generally good, although in the cognitive techniques group, one patient could not be persuaded to continue his contact after the first interview and one failed to complete his final rating interview.

The small size of the groups and the short period of the intervention mean that the data can only give an indication of efficacy. Follow-up was limited and too short to indicate whether the changes were sustainable. The group selected for study were typical of those seen in both out-patient and acute in-patient settings. They were not specifically identified as being resistant to treatment, although the length of illness and level of sustained disability of many of them meant that in practice this

was the case. Long-term in-patients were not included, although these techniques were originally developed in a group which included such patients.

Cognitive-behavioural strategies have been shown to be effective in depression and anxiety under controlled conditions, and improvements in relevant scores occurred in both groups in this study, but differences between the groups were not significant. The significant differences found in CPRS scores cannot therefore be explained as due solely to reduction in these symptoms. This study draws on an accumulating base of evidence regarding reasoning with patients with psychoses, and shows how such an approach can be introduced into general psychiatric practice. Beck appears to have been the first to describe the successful use of reasoning techniques in schizophrenia, and, with colleagues (Hole *et al*, 1979), he described eight patients, half of whom improved with the use of cognitive techniques. Fowler & Morley (1989) described five patients with whom a cognitive-behavioural approach to hallucinations was used; this enhanced their ability to control the symptoms, but was less successful at decreasing the frequency of the hallucinations and the patients' beliefs in their reality. Tarrier *et al* (1993) have described the successful use of 'coping strategy enhancement' in selected groups of patients with schizophrenia.

The techniques used in our study, although varied and requiring patience and persistence, could readily be used in general clinical practice. This would

involve a change in tack for psychiatrists involved in the maelstrom of acute in-patient and community work, who would need to set aside time for those techniques in a variety of different settings, rather than take a monitoring approach linked to neuroleptic and rehabilitation strategies.

This paper highlights what could be achieved by general psychiatrists using brief, focused, technique-oriented approaches for patients with psychoses. Many consultants will believe that they simply do not have time for such an approach. However, when psychotic symptoms are not dealt with directly by the consultant, other treatment agencies tend to follow this lead, and patients are left with little or no opportunity to test out their explanations and develop coping strategies. Such distancing approaches have their origin in dichotomous views of hallucinations and delusions, as compared to the psychotic/normality spectrum, and instead of reinforcing psychotic symptoms, they act directly to maintain them.

### Future developments

There is no psychotic arena in which the application of these techniques is more important than in the early detection of, and intervention strategies for, the psychotic prodrome. If patients with classical prodrome symptoms of illusions and hallucinations, delusional mood and ideas of reference are picked up early in primary care settings, there is every chance of an effective intervention within the critical period, before a potentially disabling delay in treatment. McGorry *et al* (1996) have described such an early intervention approach, which focuses on early detection, with individual and group support and cognitive-behavioural strategies aimed at understanding and resolving evolving psychotic symptoms. Maximum benefit is to be derived when a low-dose neuroleptic (McEvoy *et al*, 1991) with minimal cognitive and other side-effects is combined with the techniques described above.

Obviously such approaches (which can include the family at the earliest possible stage) might facilitate the emergence of more adaptive interactional patterns and the development of joint reality testing and optimal coping. Future developments in this area will look to combine the use of cognitive-behavioural techniques for psychotic symptoms with the already

proven efficacy of family interventions aimed at reducing expressed emotion (Tarrrier & Barrowclough, 1995). Cognitive remediation also aims at retraining patients with various neuropsychological and cognitive deficits (such as in attention or social problem-solving) to overcome these deficits, using a graded programme which can be applied in either group or individual format, and combined with reality-testing homework and the development of coping skills. Training of staff in the application of these techniques to patients with psychoses would be best delivered in a workshop format, with a supervision and interest group meeting regularly to discuss casework.

### Integrating cognitive and psychodynamic approaches

Patients with neuroleptic-resistant schizophrenia often require a full course of cognitive therapy (20–50 sessions, flexible in duration but probably averaging 40 minutes each) to begin the long fight back towards some degree of recovery. This is indeed a specialised area which requires special skills, including attendance at an accredited cognitive therapy centre for supervised training in the treatment of affective and personality disorders. This would have to be followed by a further period of training in adapting cognitive therapy for the treatment of psychotic disorders. Ongoing supervision of such casework would have to be carried out by an expert in the field. The main difference between the techniques-oriented approach and the cognitive therapy approach lies in the generation of a detailed case formulation, along with more focused schema change strategies. We do not suggest that general adult psychiatrists have the time to get involved in actual cognitive therapy of psychosis, yet many patients within the resistant group do need this, and the attitude of the consultant will be vital as to whether they get it.

Many general adult psychiatrists have a basic grounding and supervision in psychodynamic psychotherapy. Cognitive therapists have much to learn from psychodynamics concerning the therapeutic alliance itself and which factors within this would most facilitate therapeutic progress. It is however at the most basic level of the schema that psychodynamics and cognitive therapy converge. Psychodynamics attempts to change schemas

slowly, through exploration of defence mechanisms, within a relationship where transference and countertransference phenomena gradually illuminate those schemas, laying them open to interpretation and working through. The cognitive therapy approach to schema change is more direct. Schemas are measured on rating scales and deduced from the content of negative automatic thoughts and homework exercises designed to effect a more rapid schema change.

These disciplines need to learn from each other how best to delineate and change these very dysfunctional beliefs which so powerfully shape our affective and behavioural styles and can pave the way for illness in certain life circumstances. It may be that a psychotherapy will emerge which includes some of the techniques described, and hopefully will bring more and more psychotherapists to tackle the problems of psychosis in out-patient and group settings. Such progress is being matched through the application of cognitive science in generating models of the onset and maintenance of psychotic symptoms (Morrison, 1998). Such investigations into psychological processes will further inform and refine our therapeutic practice (Bentall & Kinderman, 1998).

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## CLINICAL IMPLICATIONS

■ General psychiatrists can improve the care of their patients with schizophrenia by using cognitive–behavioural techniques.

■ Training in the use of these approaches needs to be provided.

■ A proportion of patients will require referral for a full course of cognitive therapy.

## LIMITATIONS

■ The small number of patients studied limited the statistical power, and important differences on outcome may not have been detected.

■ The follow-up period was restricted to 6 months.

■ The consultant delivering the intervention had a basic cognitive therapy training.

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